SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE

Official Publication of Sant Gadge Baba Amravati University

PART- TWO

(Extra-Ordinary)

Monday, the 26th August, 2019

NOTIFICATION

No. 106/ 2019 Date :- 26/08/2019

Subject:- Introduction of Syllabi for Bachelor of Science (Animation) in the faculty of Inter-disciplinary Studies.

It is notified for general information of all concerned that the authorities of the University have accepted the Syllabi for **Bachelor of Science (Animation)** in the faculty of Inter-disciplinary Studies Semesters III to IV which is to be implemented from the Academic Sessions 2019-20 and onwards is appended herewith as Appendix ï ñAò

Sd/-

Dated : 26 /08/2018

(Dr. T.R. Deshmukh)
Registrar
Sant Gadge Baba Amravati University,
Amravati

Appendix ï ñAò

Semester –III
Subject Code: 2ANI301
Subject: Communication & Presentation-I

Maximum Marks: 40

Objective: Preparation for clientôs presentation regarding clientôs letters, book design, technical and creative writing & its process.

Course Outcome: After completion of the course the student will be able to

1. Construct business letters.
2. Describe role of communication in print media.
3. Design book layout.
4. Develop the concept of creative writing and its process.
5. Write technical reports.

Course Content

Theory:

Unit 1: Business Correspondence and Application Letters

Common section in Application letters, Structure of Application Letters: Introductory Paragraph, Main Body Paragraph, Closing Paragraph, Background details, Common problems in Application Letters, Types of Application Letters: Types Complaint an adjustment letters, Complaint letters, Adjustment letters, Inquiry letters: types and context, Format of a letter of Inquiry, Solicited, Unsolicited inquiry letter, Inquiry letter: Content and organization

Unit 2: Book Design

Component of a book, Book design and layout, Lists, Graphics and Tables, Graphics: An overview, Drawing, a diagrams and photos, Charts and graphs, Uses of illustration and photos, Formatting a requirements, Producing illustrations, Table: Format, Producing tables, Document graphics indicating sources

Unit 3: Technical Writing

Technical reports, Types of technical reports, Audience and situation in technical reports Audience analysis, Topics in technical reports, General characteristics of technical reports, Checklist for a technical report, Some more technical reports, Technical background reports Subjects and organization of technical background reports, Primary research reports, Subjects and organization of primary research reports, Business plans, Sections of business plans, Format of business plans, Technical description of products or products requirements, Contents and arrangement of specifications, Graphics in specifications, Structure-degree revision, Check contents, Check the structure if the contents, Check the organizations, Strength topic sentences and overviews, Strengthen transitions, Check paragraph length and content

Unit 4: Creative Writing

Choose the right story structures, Consider the full packages, Consider multi-media, Consider interactivity , Choosing the structure of your text, Consider alternate story forms, Structures, Types of structures, Narrative structures, Structural devices, Structural issues

Unit 5: Creative writing process

Time and confidence, Where do you get your idea, Oral and visual writing, Drawing on your own expressions, Looking back into your past, Importance of reading, Writing non-fictions, Writing for children, Sending your work to a publisher, Mind mapping, Idea collections sheets, Category ideas, Converting to mind map form, Converting to liner form

References:

1. Business Communication:- K.K. Sinha, Galgotia Publication, 2012, 4th Edition
2. Technical English: Writing, Reading and Speaking:- Nell Ann Pickett, Longman Publication, 2000, 8th Edition
3. The Cambridge Introduction to Creative Writing:- David Morley, Cambridge University Press, 2007

Semester –III
Subject Code: ANI302
Subject: History of Animation-II

Maximum Marks: 40

Objective: Understanding History of Art & Animation, Know how about animators, their styles, films & Animation scenario

Course Outcome: After completion of the course the student will be able to

1. Describe information about legend personalities of Disney.
2. Define worldwide animation styles.
3. Review of Famous films.
4. Describe Information about Indian pioneers and famous animators with working styles.
5. Use of Animation skills in various fields.

Course Content

Theory:-

Unit I: Disney's Nine Old Men

Les Clark, Wolfgang "Woolie" Reitherman, Eric Larson, Ward Kimball, Milt Kahl, Frank Thomas, Ollie Johnston, John Mitchell Lounsbery, Marc Fraser Davis

Unit II: Famous Animation Styles

Feature Film Style, Limited Animation, Manga, Anime

Unit III: Some of the Famous Films

Overview of Animation & VFX Movies

2D Animation Films: Jungle Book**,** Beauty and the beast**,** Lion king

3D Animation Films: Toy story**,** Tangled**,** Moana

Live & Animated Films: Avatar**,** Avengers**,** Jurassic Park**,** Dinosaur

Unit IV: The Famous Indian Animators

Pioneers, Famous Animators and their working styles.

Unit V: Application of Animation

Ad Films, News and Broadcasting, 3D Motion Paintings, Interactive Media

References:

1. Animation A World History- Giannalberto Bendazzi, Taylor and Francis, 2015,Volume 1
2. Animated Life: A Lifetime of Tips, Tricks, Techniques and Stories from a Disney Legend- Floyd Norman, Focal Press,2013,1st Edition
3. Hollywood Cartoons-Michael Barrier, Oxford University Press, 1999,1st Edition
4. Illusion of Life- Frank Thomson, Hyperion,1995

Semester –III
Subject Code: 2ANI303
Subject: Computer Languages-I

Maximum Marks: 40

Objective: Understanding Fundamentals & Principals of web designing.
Course Outcome: After completion of the course the student will be able to

1. Define the basic of web design.
2. Develop the concept of web publishing
3. Design a responsive web site
4. Recall HTML tags.
5. Introduce the basic concept of CSS.

Course Content
Theory:-

Unit 1: Introduction To Web Technologies

Definition, History and Concept of Internet, web site hosting, Content management system, Introduction of Dreamviewer, FTP

Unit 2: Web Publishing

Introduction, types, structure of website, working on website, Web Authoring Software, web standards.

Unit 3: Web Design Principles

Introduction and concept, Golden Rule of Web Design, Wireframe, Aesthetics, Page Design, Navigation bars, Different Color Schemes for Website,

Unit 4: Elements Of Html

Introduction, common tags, Text, Lists, Tables and Frames, Hyperlinks, Images and Multimedia, Forms and controls.

Unit 5: Introduction to Cascading Style Sheets

Cascading Style sheet: Concept, Types, Linking ,Properties, CSS Styling, Working with block elements and objects, Lists and Tables, CSS Id and Class, Box Model(Introduction, Border properties, Padding, Properties, Margin properties Positioning, Floating, Align, Pseudo class, Navigation Bar, CSS Color, Creating page Layout and Site Designs.

References:

1. Learning Web Design: A Beginner's Guide to HTML, CSS, Graphics, and Beyond-Jennifer Niederst Robbins, O'Reilly Media,2012, 4th edition
2. Web Design in a Nut Shell Author -Jennifer Robbins, O'Reilly Media, 2009,3rd edition
3. HTML and CSS: Design and Build Websites- Jon Duckett, Wiley,2014,1st edition

Semester –III
Subject Code: 2ANI304
Subject: Story Writing & Development -I

Maximum Marks: 40

Objective: Creating Ideas, story writing & screenplay with appropriate research & developments
Course Outcome: After completion of the course the student will be able to

1. Describe basic concept of story writing process.
2. Explain the process of story development
3. Use the knowledge of story writing for short & Feature film (Live & Animation), Documentary, Comics
4. Develop the concept of screenplay.
5. Describe concept dialogue and sound design.

Course Content:
Theory
Unit 1: Idea or Concept
Idea & concept design, Conceptual writing, Information and Research

Unit 2: Story design and development
Structure of stories, Start & Establishment, In-between drama, Climax, End.

Unit 3: Uses of stories
Novel, Fiction, Autobiography, Films (Live & Animation): Short Film, Documentaries, Feature Film, Ad Films, Interactive Media

Unit 4: Screenplay for various media
Details of Screenplay, Location & Timing description, Characters & Props description, Communication between characters, Value addition content writing, Sound, Music & Special effects writing.

Unit 5: Dialogue Writing
Dialogue writing and Design, Dialogue or Sound design for characters, props and special effects, Voice over & Songs writing.

References:
1. Ideas for the Animated Short Finding and building stories:- Karen Sullivan, Gary Schumer, Focal Press,2008, ISBN: 978-0-240-80860-4
2. Fade In:- Robert Berman, Michael Wiese Production, 1997, 2nd Edition

Semester –III
Subject Code: 2ANI305
Subject: Drawing for Animation-I
Maximum Marks: 80

Objective: Practicing Drawing for creating animated characters & props
Course Outcome: After completion of the course the student will be able to
1. Draw simple and dynamic figure of human, animal and birds
2. Illustrate Human, Birds, Animals Figures with details.
3. Demonstrate drawing & painting in various forms.

Course Content:
Practical's:
Unit I: Human Figure Study
Human figure study with various action, Dynamic human figure drawing

Unit II: Animal Figure Study
Animal figure study with various action, Dynamic Animal figure study

Unit III: Bird Study
Birds figure study with various action, Dynamic Birds figure study

Unit IV: Drawing With Details
Human Head, Hands & Legs, Animals Head & Legs, Birds heads and wings.

Unit V: Drawing & Painting
Concept Art, Still Life, Painting And Murals.

References:

1. Dynamic Figure Drawing:- Burne Hogarth, Watson-Guptill Publications, 1996, 1st Edition
2. Force character Design from Life Drawing:- Michael Mattesi, Focal Press, 2008, ISBN-9780240809939
3. Figure Study Made Easy :- Aditya Chari, Grace™ Prakashan, 2005, 1st Edition
4. Bridgman's Life Drawing:- Bridgman George B Bridgman, Dover Publications,
5. Animal Drawing Manual:- Gleann Vilppu, G.V. Vilppu publication, 2000, 1st Edition.

Semester –III
Subject Code: 2ANI306
Subject: Animation-II

Maximum Marks:80

Objective: To understanding Animation principal & Acting techniques through 2D hand drawn (cell or traditional) & 2D digital animation.

Course Outcome: After completion of the course the student will be able to

1. Illustrate character design and symbolic rigging (Cell & Digital).
2. Apply knowledge of animation technique.
3. Construct dialogue & Facial expression.
4. Associate Animation principal & Animation Acting (Cell & Digital)
5. Compose scene with action, emotions & multiple characters.

Course Content
Practical's:
Unit 1: - Character design &Symbolic Rig
Cell animation, Digital animation, Human, Animal, Birds

Unit 2:- Human, Animal & Birds
Cell animation, Digital animation, Human (Walk\Run\Jump), Animals(Walk, Run, Jumps & Gallops), Birds (Fly, Take off, Landing)

Unit 3:- Dialogue & Facial Expression.
Blend Shapes Construction: a. Lips Shapes & Lips Sync. b. Expressions

Unit 4:- Animation Action with Rules
Action With Animation Rules.
(Arc/Timing/ Anticipation/ follow-through & cutioning)

Unit 5:- Acting Synchronization with Multiple Character
Scenes development with Action, emotion & Synchronization with character & background.

References:

1. Animator Survival Kit: - Richard Williams, Faber &Faber, 2002, 1st Edition.
2. Timing for Animation: - Harold Whitaker, CRC Press,2009,2nd Edition
3. Adobe Animate CC Classroom in a Book, Russell chun, Adobe press,2017,1st Edition

Semester –III
Subject Code: 2ANI307
Subject: Character & Props-I

Maximum Marks: 40

Objective: Making 2D & 3D generated props & characters for Animation and VFX base live films.

Course Outcomes: After completion of the course the student will be able to

1. Define knowledge of 3D animation and assets building.
2. Describe pipeline for 3D Animation films.
3. Demonstrate 3D character modeling, texturing, lighting and rendering process.
4. Demonstrate 3D props modeling, texturing, lighting and rendering.
5. Compose Lighting on props.
6. Demonstrate compositing techniques.

Course Content:
Practical's:
Unit-1:- General Information of 3D Animation & Assets Building
Concept, Features and uses of 3D animation softwareôs.
Unit-2:- Pipeline For 3D Animation Films.
Process for 3D Animation films: Pre-production, production and post-productions
Unit-3:-Nurbs and Surface Modeling.
Props Modeling, Logo Modeling, Conversion of Nurbs to Polygon.
Unit-4:- 3D paint Tool & Application of Basic materials.
Using 3D paint Tool for texturing Props, use of Basic Materials for Text & Logo.

Unit-5:- Basic Lighting And Rendering

Lighting on Props, Lighting on Logo, Rendering, Images & Compositing

References:

1. Maya Professional tips and techniques: - Lee Lanier, Sybex,2007,ISBN:- 0470107405
2. 3ds Max 7.5 Projects :- Boris Kulagin, BPB Publications, 2006, ISBN:1-931769-43-5

Semester –III
Subject Code: 2ANI308
Subject: Layout & Background Design

Maximum Marks: 40

Objective: Creating 2D hand drawn & 2D digital backgrounds for Animation films

Course Outcomes: After completion of the course the student will be able to

1. Compose Layout design & Blue sketch.
2. Memorize Layout terms and techniques.
3. Use of Camera angles & Editing Rules for dynamic layout.
4. Develop digital colour application.
5. Demonstrate basic concept of Matt painting.

Course Content:

Practical's:

Unit I: Basic of Layout Design

Composition Rules, Layout for TV & Film Layout, Layout for Interactive media

Unit II: Types of Layout

One field layout (TV/Film), Pan Layout (TV/Film): Horizontal Pan (Right to left & Left to Right), Vertical Pan (Up to Down & Down to top), Cross Pan, Subjective layout & Motion Techniques

Unit III: Camera Angles & Editing Rules for Dynamic Layouts

Setting Up Your shots with Dynamic camera angles & editing rules.

Unit Iv: Study From Copy Layout & BG (Hand drawn & digital)

Copying the layout, Copying the colour background

Unit V: Stylization & Colour Application (Hand drawn & digital)

Realistic layout with appropriate colour schemes, Stylize layout with appropriate colour schemes

References:

1. Setting Up Your Shots: Great Camera Moves Every Filmmaker Should Know :- Jeremy Vineyard, Michael Wiese Productions,1999, ISBN :- 0941188736
2. Layout and Composition for Animation:- Ed Ghertner, Focal Press, 2010,1st Edition
3. Layout Background Layout:- Mike Fowler, Imprint,2002,Limited Edition ISBN:- 9780973160208

Semester –III
Subject Code: 2ANI309
Subject: Rigging & Blendshapes-I

Practical **Maximum Marks: 40**

Objective: Understanding the process used to create skeletons and interconnected control setup to Animate 3D objects & models.

Course Outcomes: After completion of the course the student will be able to

1. Describe the basic concept of Rigging.
2. Express Basic knowledge of Rigging (Characters & Props)
3. Application of Rigging
4. Application of constraint rigging.
5. Create Direct & Indirect connection in Rigging.

Course Content:

Practical's:

Unit 1:- Introduction to Rigging

Rigging**:** concept, Softwareôs used, Rigging tools

Unit 2:- Fundamentals of Rigging

Joints, Parenting, Understanding Pivot, Outliner, Hyper Graph, Hyper Shade, Channel Control

Unit 3:- Linear and Non-Linear Deformers

Lattice, Clusters, Bend, Squash, Wave

Unit 4:- Constraints Rigging

Point, Orient, Parent, Scale, Aim

Unit 5:- Direct & Indirect Connection

Set driven, Expression

References:

1. Maya Professional tips and techniques: - Lee Lanier, Sybex,2007,ISBN:- 0470107405
2. 3ds Max 7.5 Projects :- Boris Kulagin, BPB Publications, 2006, ISBN:1-931769-43-5
3. Character Rigging and Animation :- Alias, Wavefront Publication,2002, ISBN:- 9780973005233

Semester –III
Subject Code: 2ANI310
Subject: Acting & Music

Maximum Marks: 40

Objective: Learning animation acting and music composition.

Course Outcomes: After completion of the course the student will be able to

1. Understand Acting for Animation.
2. Recall Acting Rules.
3. Discuss relationship between character and audience & Analysis character in details.
4. Express movement/speech/camera techniques
5. Knowledge of Music editing & recording software .
6. Arrange Equalization, Dynamics effects and Mixing.

Course Content:

Practical's:

Unit 1:- Seven Essential Acting Concepts

1. Thinking tends to lead to conclusions,
2. Emotion tends to lead to action,
3. Acting is reacting, Acting is doing,
4. Your character need to have an objective,
5. Your character should play an action until something happens to make him play a different action All Action begins with movement,
6. Empathy is the magic key audiences empathize with emotion,
7. A scene is a negotiation.

Unit 2:- The Audience, The Character, The Scheme

The Actor Audience Contract, Suspending Disbelief And Animation, Theatrical Reality Versus Regular reality, Holding the mirror UP to Nature, Personality Animation, Character Analysis, Primal Analysis, Negotiation, Status Negotiations Scenes Begin in the Middle, The Rehearsal, Emotion And Empathy, Paul Ekman and the expression of Emotion, Charlie Chaplin and Empthy, Acting is a process of Exposing ,Not hiding , Adrenaline Moments, How to use the Andrenaline moment concept, Heroes And Villains

Unit 3:- Moment/ speech/cameras & Technique

Animating force Versus form , Body Language, Power Centers, The psychological gesture, Effect of Alcohol and Drugs on movement, Laban movement Theory, Space ,Effort, Acting listening, Acting for Camera, The Actor Generally leads the camera simplify your Action, Avoid Ambivalence, Never Deny the Reality of your scene partner, What kind of Animal would your Character bes, Remember the Fruit Salad, Line Action Reference, Rotoscoping, Mocap, Character Rhythm, The look of memory, The use of Symbolism and foreshadowing, Practical Application for Animators, Mirrors

Unit 4:- The Form/ The Medium & Film Analysis

Comedy Farce, Caricature, Video Games, Television Commercials, Implied Visual Message, No new products, No conflict, Picture - Not Words, Playing to the Camera, Classroom, Power Centre Games, Animal Exercises, What is my Profession? What is my Age?, Given Circumstances Game, Gibberish Exercise, Boss And Workers game, The iron giant an Acting Analysis Scene by scene, Postscript what is method Acting ?, Recommended Reading And Additional Study, Works cited

Unit 5: Introduction to Recording and Editing

Music Production Process, Basic studio introduction, Sound design and dubbing, Music Production Tools. Record enabling a track, setting up track, setting input levels, recording with effects, Tools, Vocal track and multi track editing, Panning, Import & Export Files, Copy & Paste, Fades

Unit 6: Equalization & Dynamics (effects) and Mixing

EQ type, Filters, setting up send effects, using various effects, setting effect levels, VST channel Mixer, Working with video files, Plugins, Inserts, Automation tracks

References:

1. Acting for Animators:- Ed Hooks, Heinemann Drama,2000,1st Edition ISBN:- 032500580
2. Acting and performance for animation:- Hayes, Derek; Webster, Chris, Focal Press,2013, ISBN: 978-0-240-81239-7
3. Acting and Character Animation:- Rolf Giesen, Anna Khan, CRC Press,2017,1st Edition
4. The science of sound recording :- Jay Kadis, Focal press, 2013, ISBN:-978-0-240-82154-2
5. Introduction to sound recording:- Martinn, Geoff, Martinn, Geoff, 2011
6. Designing sound for Animation:- Robin Beauchamp, Focal Press,2013, 2nd Edition

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Semester –IV
Subject Code: 2ANI401
Subject: Communication & Presentation-II

Maximum Marks: 40

Objective: Making Presentation for Clients & preparation for it as well as fluency in language and uses right words & Phrases also known how about the software which are required for the presentation.

Course Outcome: After completion of the course the student will be able to

1. Develop the skill of presentation.
2. Application of presentation software.
3. Describe of Basics of projectors and how projectors are connected to computer system.
4. Develop skills for Job interview.
5. Develop life skills.

Course Content

Theory

UNIT 1: Delivering Presentation

Analyzing And Audience, Avoiding Common Mistakes Made By Presenters, Bad Delivery Habits, Do Not Go Blank During Your Presentation, Eliminating Filler Words And Action Giving Your First Public Presentation, Integrating Movement In Presentation, Making Eye Contact With Your Audience, Overcoming Your Fear Of Presenting, Planning Breaks During Presentation, Presenting To Different Types Of Audiences, Tips For Keeping Your Presentation Interesting

UNIT 2: Visual Presentations

The Basics Of File Compression, Capturing Bitmaps At The Correct Resolution For Projection, Choosing The Right Colors For Your Next Presentation, Fonts And PowerPoint : Truetype And Postscript, Graphic Types And Electronic Presentations, Quick Tips For Effective Visuals, Using Different Backgrounds Withtin A Single Presentation, Tips For Converting Multimedia Presentations To Html, Proper Use Of Flipcharts

UNIT 3: Knowing Projectors

Types Of Projectors, Connecting Laptops To Projectors, Connecting PowerBooks To Projectors, Connecting Projectors To Public Address System Or External, Speakers Connecting Projectors To Video Devices, Setting Up Projectors And Determining The Correct Image Size

UNIT 4: Employment Communication- Job Interview

Factors involving Job interview, Characteristics of Job interview, Job interview process, Job interview techniques- Manners and etiquettes to be maintained during an Interview Sample questions commonly asked during interview, Interview attire

UNIT 5: Life Skills

Teamwork, Leadership styles, Critical and creative thinking skills, Problem solving skills

References:

1. The Handbook of Communication Skills:- Owen Hargie, Routledge, 2006,3rd Edition
2. Public speaking and presentation demystified:- Melody templeton, McGraw-Hill, 2009,1st Edition, ISBN- 9780071601214
3. PowerPoint Advanced Presentation Techniques:- Faithe Wempen, Wiley,2004, ISBN:- 9780764568817

Semester –IV
Subject Code: 2ANI402
Subject: History of Animation-III

Maximum Marks: 40

Objective: Understanding History of Art & Animation, Know how about the Animation History, Animators, styles, films & Animation scenario

Course Outcome: After completion of the course the student will be able to

1. Prepare case study on Oscar-winning animated films.
2. Describe Information about the legends in Animation Film making.
3. Describe working style in universal studio.
4. Discuss animation Scenario.

Course Content

Theory

Unit I: Secrets of Oscar-winning Animation (Information)

Neighbors, Frank Film, Le Chateau de Sable (the Sand Castle), A Legy(The fly), Anna & Bella, The Man who Planted trees

Unit II: Secrets of Oscar-winning Animation (Case Study)

Balance, Manipulation, Mona Lisa Descending a staircase, Quest, The Old Man and the Sea, Father and Daughter, Harvie Krumpet

Unit III: A Story of Two Legends

Walt Disney, Steven Spielberg

Unit IV: The Work style of Universal studio

Introduction & Working Style, SFX & VFX

Unit V: Today's Animation Scenario

Worldwide Animation Scenario, Indian Animation Scenario

References:

1. Industrial Light & Magic: The Art of Special Effects**;-** Thomas G. Smith, Ballantine Books,
2. Animated Life: A Lifetime of Tips, Tricks, Techniques and Stories from a Disney Legend: Floyd Norman, Focal Press,2012, 1st Edition,ISBN: 978-0-240-81805-4
3. Secrets of Oscar winning Animation: Oliver Cotte, Focal press,2006,ISBN: 9780240520700
4. Illusion of Life:- Frank Thomson, Hyperion,1995, 1st Edition, ISBN:- 0786860707

Semester –IV
Subject Code: 2ANI403
Subject:- Computer Languages-II

Maximum Marks: 40

Objective: Use of scripting language in Animation, Interactive media

Course Outcome: After completion of the course the student will be able to

1. Develop basic concepts of scripting language
2. Practice fundamentals of Python.
3. Write programs of Python and MEL scripting.

Course Content

Theory

Unit 1: Introduction to scripts and scripting

Script, Origins of scripting, Characteristics of scripting languages, Applications of Scripting Languages , Web scripting.

Unit 2: Fundamentals of Python

Python Overview, differences between MEL and Python, Various Commands, the limitations of MEL, Basic MEL/Python commands.

Unit 3: Data Types

Core Data Types, Variables, Comments, Numeric Types, Operators, Division and Truncation, ls, getAttr, setAttr Commands, Escape Sequences,Basic String Operations, Indexing and Slicing Strings, Modifying Strings, String Methods, String Formatting, Print Function, Lists, Lists - Adding and Removing Objects, Sorting Lists, Tuples, Dictionaries

Unit 4: Python Statements

If/Else Flow Control, Logical and/or Operators, Maya Commands: Errors and Warnings, For Loops, While Loops, Commands: select, Errors and Warning

Unit 5: Functions

Function Basics, Return Statements, Args, Keywords and Defaults, Pass by Reference, Built-in Functions, Simple Example Using Functions

References:

1. The world of scripting languages:-David Barron, ,2000 , ISBN:- 0-471-99886-9
2. MEL Scripting a Character Rig in Maya:Chris Maraffi, Ballantine Books,2008
3. Practical Maya Programming with Python: Robert Galanakis, Packt Publishing, 2014

Semester –IV
Subject Code: 2ANI404
Subject: - Story Writing & Development-II

Maximum Marks: 40

Objective: Creating content and its development for film, Production and Post production.

Course Outcome: After completion of the course the student will be able to

1. Describe Production content development.
2. Develop the concept of visual screen play.
3. Design dialogue and sound for Animation.
4. Describe Pre production design.
5. Describe Post Production & Films output.

Course Content

Theory

Unit 1: Content development

Background (Locations), characters & Props (casting), creative direction, art direction, technical direction, Rough sound track

Unit 2: Visual Screen Play

Story boarding, Animatics

Unit 3: Sound design & Dubbing

Dialogues design & Dubbing, Songs & Visual effects

Unit 4: Production

Staging**,** Production for live or Animation**,** Green screen shoot (Croma)**,** SFX, VFX, Compositing & Rendering

Unit 5:Post Production

Editing, On-line effects, Final output

References:

3. Ideas for the Animated Short Finding and building stories:- Karen Sullivan, Gary Schumer, Focal Press,2008, ISBN: 978-0-240-80860-4
4. Fade In:- Robert Berman, Michael Wiese Production, 1997, 2nd Edition

Semester –IV
Subject Code: 2ANI405
Subject: Drawing For Animation-II

Maximum Marks: 80

Objective: Practicing Drawing and Painting for creating animated characters & props.

Course Outcome: After completion of the course the student will be able to

1. Illustrate various kinds of character art & design.
2. Express character attitude & Facial expression.
3. Compose story boarding design for various media.

Course Content

Practical

UNIT I: Character Design (A)
Cartoon, Iconic

UNIT II: Character Design (B)
Realistic, Semi realistic

UNIT III: Character Design (C)
Mix & Match, Super Realistic

UNIT IV: Character Attitude & Expression sheet (Bible)
Character Attitude chart, Character Expression chart, Character lip sync, Character Family chart

UNIT V: Basic of Story Board Design
Story Board For TV, Story Board for Interactive.

Reference

1. Dynamic Figure Drawing:- Burne Hogarth, Watson-Guptill Publications, 1996, 1st Edition
2. Force character Design from Life Drawing:- Michael Mattesi, Focal Press, 2008, ISBN-9780240809939
3. Figure Study Made Easy :- Aditya Chari, Grace™ Prakashan, 2005, 1st Edition
4. Bridgman's Life Drawing:- Bridgman George B Bridgman, Dover Publications,
5. Animal Drawing Manual:- Gleann Vilppu, G.V. Vilppu publication, 2000, 1st Edition.

Semester –IV
Subject Code: 2ANI406
Subject: Animation-III

Maximum Marks: 80

Objective: Making action with emotions for animated films from 3D generated Digitalized models.
Course Outcome: After completion of the course the student will be able to

1. Practice Animation principals using 3D software.
2. Illustrate Path Animation.
3. Demonstrate bouncing ball.
4. Illustrate wave principal.
5. Apply Animation principal (Bouncing Ball & Wave Principal)

Course Content
Practical:

Unit 1: Introduction to 3D Animation.
Overview, animation principals

Unit 2: Path Animation.

Straight path, Zig Zag Path, Weight & Timing

Unit-3:- Bouncing Ball.

Understanding Animation principal by using various kinds of Balls.

Unit-4:- Wave Principle.
Understanding wave principal by using Props & Characters.

Unit-5:- Ball With Biped and Quadruped characters.
A) Ball with Biped : a. Walk. b. Run. C. Jump.
B) Ball with Quadruped : a. Walk. b. Run. C. Gallops.

Reference

1. Animator Survival Kit: - Richard Williams, Faber &Faber, 2002, 1st Edition.
2. Timing for Animation: - Harold Whitaker, CRC Press,2009,2nd Edition
3. Maya Professional tips and techniques: - Lee Lanier, Sybex,2007,ISBN:- 0470107405
4. 3ds Max 7.5 Projects :- Boris Kulagin, BPB Publications, 2006, ISBN:1-931769-43-5

Semester –IV
Subject Code: 2ANI407
Subject: Matt Painting-I

Maximum Marks: 40

Objective: Making 3D generated digital locations for 3D animated and live films

Course Outcome: After completion of the course the student will be able to

1. Illustrate Digital Painting techniques.
2. Composed Matt painting with 2D & 3D generated contents.
3. Composed Matt with Animated & Live Objects
4. Use of Matt painting in various media.

Course Content

Practical:

UNIT I: Introduction to Matt painting

History, Use of Matt Painting, Types of Matt Painting

UNIT II: Copy of Matt painting by Famous Matt designers

Copy Matt Painting on Paper, Copy Matt Painting digital

UNIT III: Matt Painting for TV (Live / Animation)

Understanding Sequence & scene description, Requirement gathering and specification, Content development (2D / 3D/ Live), Layout & Colour schemes, Final Matt painting with TV Ratio.

UNIT IV: Matt Painting for Film (Live / Animation)

Understanding Sequence & scene description, Requirement gathering and specification, Content development (2D / 3D/ Live), Layout & Colour schemes, Final Matt painting with Film Ratio.

UNIT V: Matt Painting for Drama or Live show

Understanding Sequence & scene description, Requirement gathering and specification, Content development (2D / 3D/ Live), Layout & Colour Scheme, Final Matt Painting with HD Ratio.

Reference

1. Digital Matt painting handbook:- David B. Mattingly, Sybex,
2. Techniques of Dylan cole: Dylan cole, Gnomon workshop
3. Setting Up Your Shots: Great Camera Moves Every Filmmaker Should Know :- Jeremy Vineyard, Michael Wiese Productions,1999, ISBN :- 0941188736
4. Layout and Composition for Animation:- Ed Ghertner, Focal Press, 2010,1st Edition

Semester –IV
Subject Code: 2ANI408
Subject: Rigging & Blend shapes-II

Maximum Marks: 40

Objective: Understanding the process used to create skeletons and interconnected control setup to Animate 3D objects & models.

Course Outcome: After completion of the course the student will be able to

1. Illustrate basic prop Rigging (Characters & Props)
2. Demonstrate basic mechanical rigging.
3. Practice fundamentals of Blendshapes
4. Illustrate winged character rigging.
5. Practice Basic cartoon rigging.

Course Content

Practical:

Unit 1:- Basic Prop Rigging

Understanding Phenomenon of Prop rigging

Unit 2:- Basic Mechanical Rigging.

Rigging Mechanical Props & Character

Unit 3:- Fundamentals of Blendshapes.

Understanding deformation of props, character & BG.

Unit 4:- Winged Character Rigging.

Winged character: Birds, Insects, creatures

Unit 5:- Basic Cartoon Rigging.

Biped Character rigging and skinning

References:

1. Maya Professional tips and techniques: - Lee Lanier, Sybex,2007,ISBN:- 0470107405
2. 3ds Max 7.5 Projects :- Boris Kulagin, BPB Publications, 2006, ISBN:1-931769-43-5
3. Character Rigging and Animation :- Alias, Wavefront Publication,2002, ISBN:- 9780973005233

Semester –IV
Subject Code: 2ANI409
Subject: Dynamics & Visual Effects

Maximum Marks: 40

Objective: Learning fundamentals of dynamic stimulation in computer graphics

Course Outcome: After completion of the course the student will be able to

1. Describe basic concept of Dynamics
2. Practice dynamics tools.
3. Use nParticle system.
4. Illustrate container effects in 2D & 3D.
5. Illustrate Fluid effects.

Course Content

Practical:

Unit 1:- Dynamics and Visual Effects.

Dynamics: Introduction, Applications, Software, Introduction to Visual effects (VFX)

Unit 2:- Dynamics tools

Basic of Dynamics tools

Unit 3:- Fundamentals of nParticle System.

Fundamentals of nParticle System.

Unit 4:- Basic Dynamic 2D & 3D Container Effects.

Smoke, Fire, Cloud

Unit 5:- Basic Dynamics Fluid Effects.

Ocean, Pond\Wake, Motor Boat.

References:

1. Maya Professional tips and techniques: - Lee Lanier, Sybex,2007,ISBN:- 0470107405
2. 3ds Max 7.5 Projects :- Boris Kulagin, BPB Publications, 2006, ISBN:1-931769-43-5
3. Character Rigging and Animation :- Alias, Wavefront Publication,2002, ISBN:- 9780973005233

Semester –IV
Subject Code: 2ANI410
Subject: Characters & Props-II

Maximum Marks: 40

Objective: Making 2D & 3D generated models, props for Animation Films also creating 3D proxy character & props for VFX based live films.

Course Outcome: After completion of the course the student will be able to

1. Describe the concept of Polygon modeling.
2. Use of Polygon modeling.
3. Use of UV and texturing on Props and character models.
4. Use of Lighting on Props and character.
5. Apply Transfer Map on Props & characters.

Course Content:

Practical

Unit-1:- Introduction of Polygon Modeling.

Polygon: Concept, components, Polygonal vertices**,** Polygonal faces**,** Polygonal edges

Polygonal UVs, Basic polygonal primitive objects , Creating polygonal primitives

Unit-2:- Polygon Modeling.

Exterior Modeling , Interior Modeling, Character and Props Modeling.

Unit-3:- UV's And Texturing.

Types of Mapping, Introduction of UVôs Text Editor, Application of UV and Texturing on Props and character models.

Unit-4:- Lighting.

Types And Used of lights, Application Lighting on Props & Character.

Unit-5:- Transfer Maps and Rendering.

Application & used of Transfer maps, Render Settings, Render Engines, Mental Ray on props & characters.

References:

1. Maya Professional tips and techniques: - Lee Lanier, Sybex,2007,ISBN:- 0470107405
2. 3ds Max 7.5 Projects :- Boris Kulagin, BPB Publications, 2006, ISBN:1-931769-43-5

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