

Deccan Education Society's
FERGUSSON COLLEGE, PUNE
(AUTONOMOUS)

SYLLABUS UNDER AUTONOMY
SECOND YEAR B.Voc. Digital Art and Animation
SEMESTER – III

SYLLABUS FOR B.Voc. Digital Art and Animation
Academic Year 2017-2018

**Deccan Education Society's
FERGUSON COLLEGE, PUNE 411004
Scheme of Course Structure (Faculty of Science)**

Department: S.Y. B.Voc. Digital Art and Animation

Particulars	Name of Paper	Code	Title of Paper	No. of Credits
S.Y. Semester III	Theory Paper 1	BVA2301	Concept Development	4
	Theory Paper 2	BVA2302	Web Development	4
	Theory Paper 3	BVA2303	Production Process I	4
	Practical Paper 1	BVA2304	Practical in Cell Animation	6
	Practical Paper 2	BVA2305	Practical in 3ds Max	6
	Practical Paper 3	BVA2306	Practical in Production Process II	6
S.Y. Semester IV	Theory Paper 1	BVA2401	Script Writing	4
	Theory Paper 2	BVA2402	Maya I	4
	Theory Paper 3	BVA2403	Flash	4
	Practical Paper 1	BVA2404	Practical in 2d Animation	6
	Practical Paper 2	BVA2405	Practical in Maya II	6
	Practical Paper 3	BVA2406	Practical in Sculpting	6

BVA2301 Concept Development

Objective:

The Concept is the **big idea** or **generalization** contained in the Learning Objective. In Concept Development, we will explicitly teach the students the concept, **what it is**, the generalization, the big idea. Concept Development is important so students can generalize new situations in school and real life. Students need a good foundation at the conceptual level so they can apply the concepts they have learned to new situations. For example, students can calculate how much paint is needed to paint a wall because they immediately recognize that this involves determining area.

PAPER CODE: BVA2301

PAPER –I: Concept Development

[Credit -3: No. of Lectures 45]

	Concept Development	No. of Lectures
Unit -I	The Creative Approach <ol style="list-style-type: none">1. Ideas2. Developing ideas3. Ideas and imagination4. Ideas, categories and ways to get it5. Ideas and free association6. Search engines to fuel ideas7. Idea cum sketch book concept8. Reverse ideation	9
Unit -II	Concept Development <ol style="list-style-type: none">1. From ideas to concepts2. Developing concepts from object, situation, location and characters3. Concept art – basics4. Pre production in animation = concept building5. The three board concepts – mood boards, story boards, spring boards6. Verbal and visual concepts7. Concept development in various types of animation8. Visualization exercises9. Mind mapping in concept building	9

Unit –III	<p>Creativity in Animation</p> <ol style="list-style-type: none"> 1. Creativity – definition, ways to get to it and examples of various creative works 2. Creativity in animation – building various creative animation concepts 3. Concept development in graphic design 4. Concept development in advertisements 5. Concept development in digital media (understanding the digital world, market and deliverables) 6. Concept development for magazines 7. Knowing your audience (how to identify your target group) 8. The random thought process 9. The creative briefs – introduction with small CBs 	9
Unit –IV	<p>The Creative Brains</p> <ol style="list-style-type: none"> 1. Creativity and personality 2. Observational creativity 3. What’s creativity and what’s being creative 4. Fostering creativity 5. Creativity and visualization 6. Creativity comes in 4 stages 7. The creative process and theories 8. Abstract creativity 9. Creativity techniques 10. Problem solving – the creative exercise 	9
Unit –V	<p>Other Creative Exercises</p> <ol style="list-style-type: none"> 1. Understanding creative briefs and writing one 2. The 8D approach to ideation 3. Thinking outside the box 	9

	<ol style="list-style-type: none">4. Cartoon captions5. Creative conversation part 1 and 26. Abstract composition7. Pinboards8. The creative CVs9. Product re-skinning10. Creative blueprints11. Small team presentation on innovation12. Advancement of animation in digital/online/internet world13. Make a toy – sell – resell – know how to pitch your work14. Toon box – what’s that your audience wants to see15. The idea book	
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References:

1. Shot by shot visualizing from concept to screen Book by Steven D. Katz

BVA2302 Web Development

Objective: Understand the importance of the web as a medium of communication. Understand the principles of creating an effective web page, including an in-depth consideration of information architecture. Become familiar with graphic design principles that relate to web design and learn how to implement these theories into practice.

PAPER CODE: BVA2302		
PAPER –I: Web Development		
[Credit -3: No. of Lectures 48]		
	Web Development	No. of Lectures
Unit -I	Introduction Concept of WWW, Internet and WWW, HTTP Protocol: Request and Response, Web browser and Web servers, Features of Web	8
Unit -II	HTML5 Structuring an HTML Document - Elements and Attributes, Tags, The DOCTYPE Element Creating and Saving an HTML Document, Validating an HTML Document, Viewing an HTML Document, Hosting Web Pages. Understanding Elements Working with Text Defining the DIV Element and SPAN Element Working with Links The target Attribute, The id Attribute Creating Tables Working with Images, Colors, and Canvas Working with Forms Working with Multimedia	10
Unit –III	CSS Evolution, Syntax, CSS Selectors, Inserting CSS in an HTML Document Backgrounds and Color Gradients in CSS	10

	<p>Font Properties</p> <p>Creating Boxes and Columns Using CSS</p> <p>Displaying, Positioning, and Floating an Element</p> <p>Effects, Frames, and Controls in CSS</p>	
Unit –IV	<p>Dreamweaver</p> <p>Introduction</p> <p>Adobe Dreamweaver CS3</p> <p>Text Styles</p> <p>Images and Links</p> <p>Symbols and Lines</p> <p>Tables</p> <p>Forms</p>	10
Unit –V	<p>Server Side Technology</p> <p>HTTP Transactions</p> <p>Multitier Application Architecture</p> <p>Client-Side Scripting versus Server-Side Scripting</p> <p>Accessing Web Servers</p> <p>PHP – Introduction, Basics, String Processing and Regular Expressions, Form Processing</p>	10
<p>References:</p> <ol style="list-style-type: none"> 1. Web Technology, black book (Kogent learning solutions inc.) 2. HTML5 black book: covers CSS3, Javascript, XML, XHTML, Ajax, PHP and Jquery 		

BVA2303 Production Process I

Objective:

Pre-production is the phase of further developing ideas and planning prior to the process of production. In a live action movie sense it is the period before filming starts. In an animation sense it is the period before any real animating takes place.

Like all great projects the success is in the planning. This section gives an overview of the different steps involved in the Pre-production process and how each step helps to develop a 'roadmap' on which to base the further production stages.

PAPER CODE: BVA2303		
PAPER –I: Production Process I		
[Credit -3: No. of Lectures 48]		
	Production Process I	No. of Lectures
Unit -I	History of Animation ERA's (Cave painting, thaumatrope, zoetrope, flipbook, magic lantern etc) Worldwide cartoon art style. Polaroid animation techniques	10
Unit -II	Pre Production Journey from idea to concept Pre production of films (2d, 3d, VFX) Pre production of other fields	8
Unit –III	Principles of animation All 12 principles Gesture Drawing Shape study	10
Unit –IV	Production Pipeline 2d animation 3d animation Films Gaming	10
Unit –V	Character Design Character bible Character observation Character expressions	10
Ref: 1. Storyboard Design course by Giuseppe Cristiano--- Barron's 2. How to write for animation—Jeffery Scott 3. The art of layout and storyboarding- Mark T. Byrne		

	PAPER CODE: BVA2304 PAPER –: Practical in Cell Animation [Credit -6: No. of Practicals 10]
1	12 principles of animation (All on light Box)
2	Assignments are based on the 12 principles of animation
3	Developing Animation Character
4	Anatomy & Body Language
5	Introduction to equipment required for animation
6	Thumbnails, motion studies, drawing for motion.
7	Essentials & qualities of good animation characters
8	Three dimensional drawings of characters

	PAPER CODE: BVA2305 PAPER –: Practical in 3ds Max [Credit -6: No. of Practicals 10]
1	Introduction Introduction Basic Interface, Layout - Transformation and viewport tools Geometry creation - Slandered primitives, extended primitives etc. Creating a table chair using basic manipulation tools
2	Modelling Edit Poly Modeling Extrude, Chamfer, Bridge, Edge ring loops etc Designing same table chair with a single polygon model. Spline Modeling (Modeling using shapes and lines) Bend, twist, taper, stretch, skew, Symmetry, Mirror, Edit mesh, UVW Mapping, Extrude etc Creating a house using Splines and Polys Doors, windows, stairs, railings etc. Assignments : Modeling a game weapon, Environment
3	Texturing Material editor basics - Creating and applying materials to an object Material editor properties - Diffuse, Reflection, Specularity, Opacity etc. Texture mapping properties - Tiling, rotating texture, changing colors or a texture

	<p>inside max Bump, specular, reflection mapping Unwrapping UV's Creating Texture Sheet for an asset Texture baking Assignments : Unwrapping and texturing the game assets we created in last section.</p>
4	<p>Game Assets Creation Modeling and Texturing a game asset Baking textures with basic lights Organizing before exporting the model to the game engine. Exporting Formats and settings. Exporting assets and importing it in UNITY.</p>
5	<p>Basic Rigging, Animation and Rendering Basic rigging using biped Basic animations - Bouncing ball, Walk Cycle Rendering techniques</p>

	<p>PAPER CODE: BVA2306 PAPER –: Practical in Production Process II [Credit -6: No. of Practicals 10]</p>
1	<p>Character Design a) Character construction b) Basic human anatomy c) Character model sheet d) Expression chart</p>
2	<p>Storyboard & Layout a) Shot & Scenes b) Storyboard continuity (Types) c) Storyboard film study d) Perspective [Rough Concept for layout study] e) Layout framing & Study f) Animatics</p>
3	<p>Color keys Assignments are based on the BG design (with different color moods)</p>
4	<p>Intro to X sheet a. Introduction b. Use of X sheet c. Industry view of X sheet</p>

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SEMESTER – IV

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BVA2401 Script Writing

Objective:

Screenwriting, also called scriptwriting, is the art and craft of writing scripts for mass media such as feature films, television productions or video games. It is frequently a freelance profession.

PAPER CODE: BVA2401

PAPER –I: Script Writing

[Credit -3: No. of Lectures 45]

	Script Writing	No. of Lectures
Unit -I	Genres and Categories in animation film	9
Unit -II	Storyboard – the visual write-up	9
Unit –III	Basic Animation Writing Structure	9
Unit –IV	The Animated Feature Film	9
Unit –V	Beyond the Basics Advice, Tips, and Tricks	9

References:

1. The Screenwriter's Bible: A Complete Guide to Writing, Formatting, and Selling Your Script **Author:** David Trottier. **ISBN:** 9781935247029
2. Developing Characters for Script Writing, **Author:** Rib Davis, **Publisher:** A&C Black (2004), **ISBN:** 9780713669503

BVA2402 Maya I

Objective:

After completing this course users will be able to:

1. To provide a solid understanding on the concept and usage of Autodesk Maya.
2. To enable new users to understand the user interface and operate Autodesk Maya independently.
3. Understand the production pipeline and workflows used in the industry.
4. Create and manipulate 3D assets in the application

PAPER CODE: BVA2402 PAPER –I: Maya I [Credit -3: No. of Lectures 48]		
	Maya I	No. of Lectures
Unit -I	Understanding the Maya Interface	8
Unit -II	Modeling with Polygons	8
Unit –III	Modeling a Character	8
Unit –IV	Surfacing Your Character	8
Unit –V	Blend Shapes	8
Unit –VI	Rendering and Compositing Your Scene	8
Reference Books: Introduction-to-Maya-2014 by DARIUSH DERAKHSHANI.		

BVA2403 Flash

Objective:

After completing this course student will learn: 2D Digital Animation, 12 principals of Animation, they will understand concept of making digital 2d films.

PAPER CODE: BVA2403 PAPER –I: Flash [Credit -3: No. of Lectures 45]		
		No. of Lectures
Unit -I	Overview of Flash	9
Unit -II	Introduction to the flash interface	9
Unit –III	Introduction to drawing and drawing tools in Flash	9
Unit –IV	Shaping Objects – Overview of shapes, Drawing & Modifying	9
Unit –V	Animation -Principles, Frame by frame animation	9
References: 1. Adobe Flash Bible		

	PAPER CODE: BVA2404 PAPER –: Practical in 2d Animation [Credit -6: No. of Practical 10]
1	Character run cycle
2	Acting for animation
3	Dialogue
4	4Lip sequence
5	Developing the characters with computer animation.
6	2D virtual drawing for animation, sequential movement drawing <ul style="list-style-type: none"> • Bouncing ball, • Anticipation, • Wave principle, • Overlapping & follow through, • Solid drawing, • Run cycle & walk cycle.

	PAPER CODE: BVA2405 PAPER –:Practical in Maya II [Credit -6: No. of Practical 10]
1	Rigging (Rigging a Character)
2	Skinning (Weighting Joints)
3	Animating Your Character
4	Maya Dynamics
5	Lighting Your Shot

	PAPER CODE: BVA2406 PAPER –:Practical in Sculpting [Credit -6: No. of Practical 10]
1	Sculpting Concepts
2	Introduction to Mudbox
3	Sculpting a Portrait Bust
4	Sculpting a Figure
5	Painting Sculptures
6	Sculpting Head Basic
7	Sculpting Head Male
8	Sculpting Head Female
9	Sculpting Torso
10	Legs