

**SARVEPALLI RADHAKRISHNAN  
UNIVERSITY, BHOPAL**



**B.A. (Animation & Design)**

**Scheme & Syllabus**

**I, II Year**

**COURSE - B.A (ANIMATION & DESIGN) SCHEME & SYLLABUS**  
**FIRST YEAR**

SUBJECT CODE	SUBJECT NAME		THEORY			PRACTICAL			TOTAL
			TH	CCE	TOTAL	PR	CCE	TOTAL	
FC101	FOUNDATION COURSE	FC-12 ENGLISH	30	5	35				100
		FC-11 HINDI	30	5	35				
		FC-13 ENTERPRENEURSHIP	25	5	30				
BAA101	CONCEPTS OF FILM MAKING	PAPER-I	42.5	7.5	50	40	10	50	150
		PAPER-II	42.5	7.5	50				
BAA102	DESIGN & COMPOSING	PAPER-I	30	5	35	40	10	50	150
		PAPER-II	30	5	35				
		PAPER-III	25	5	30				
BAA103	MAX MODELING & ANIMATION	PAPER-I	42.5	7.5	50				150
		PAPER-II	42.5	7.5	50				
		PAPER-III	42.5	7.5	50				

**FIRST YEAR**  
**FOUNDATION COURSE**

**ENGLISH**

**CODE- FC12**

Unit 1

Where the mind is without fear: Rabindra Tagore

The Hero: R.K Narayan

Tryst with Destiny: Jawaharlal Nehru

Indian Weavers: Sarojini Naidu

The portrait of a Lady: Kushwant Singh

The solitary reaper: William Wordsworth

Unit 2

Basic language skills: Vocabulary, synonyms, antonyms, word formation, prefixes and suffixes

Unit 3

Basic language skills: Uncountable nouns, verbs, tenses, adverbs

Unit 4

Comprehension/ unseen passage

Unit 5

Composition and paragraph writing

## **FIRST YEAR**

### **FOUNDATION COURSE**

#### **ENTREPRENEURSHIP**

**CODE- FC 13**

Unit 1 Entrepreneurship development: concept and importance, function of entrepreneur, goal determination- problems, challenges and solutions

Unit 2 Project proposal- needs and objects- nature of organization, production management, financial management, marketing management and consumer management

Unit 3 Role of regulatory institutions, role of development organizations, self-employment oriented schemes, various growth schemes

Unit 4 Financial Management for project- Financial Institutions and their role, capital estimation and arrangement, cost and price determination, accounting management

Unit 5 Problem of entrepreneur- Problem relating Capital, problem relating registration, administration problem and how to overcome from problems

## CONCEPTS OF FILM MAKING

### PAPER-I

#### Basics of Film Making I

Introduction to Cameras  
Camera Operations  
Types of Camera Angles-I  
Types of Camera Angles-II  
Lighting in Cinematography- I  
Lighting in Cinematography-II  
Composition - I  
Composition - II  
Story Development and Screenplay -I  
Story Development and Screenplay –II  
Stop motion introduction, Cutout animation  
Pixilation  
Claymation  
Creating a film with stop motion

### PAPER-II

#### The Art of Editing - Sound Editing

Using the workspace of Sound Editing Software  
Importing and recording Sound  
Editing audio  
Cleaning and restoring audio

### Paper-III

#### The Art of Editing - Video Editing

Broadcasting standard and Types Of Editing  
New Project setting, Importing footage, Lineup on timeline  
Adding Transition, Refining edit, Trimming, Using Editing tools  
Titling and Video effects  
Color correction  
Integrating Audio on Timeline  
Audio filters  
Rendering the final Output

# **DESIGN & COMPOSING**

## **PAPER-I**

### **Pre Production**

Introduction to Drawing  
Film Viewing  
Perspective Study  
Background and Layout Design  
Anatomy Study -I  
Anatomy Study -II  
Body Language  
Posing  
Character Design-I  
Character Design-II  
Story Boarding-I  
Story Boarding-II

## **PAPER-II**

### **Digital Design**

Introduction to Photoshop Working with selection tools and layers Typography and Film Poster (artistic color wheel) Working with Brushes Working with Color Channels and Masking Gradient and Blending Modes Color Correction (tech color wheel) Image Restoration Create clean plate for VFX Vanishing Point ,Lense Distortion Correction Matte Painting Working with Vector shapes, Logo Creation Digital Painting - Creating Product Creating Digital Painting Filters Effects-I

Filters Effects-II  
Creating Panaroma and HDR images

## **PAPER-III**

### **Basics of Compositing**

New Compostion,Animation and Blending in Layers  
Text Layer,Animating Text  
Deinterlacing a footage,Masking,Rotoscopy-shape based  
Rotoscopy- character  
Keying Basics  
Color Correction  
Advanced Keying with CC  
Tracking and Stabilizing  
3D Interface and 3D Camera Tracking

Wire Removal  
Sequence painting with Photoshop  
Displacement Map  
AFX particles  
Motion Graphics  
Motion Graphics  
Pack Shot-TVC

# MAX MODELING & ANIMATION

## PAPER-I

### Max-Modeling

Introduction to 3D Studio Max(interface & tools)  
working with primitive geometry  
Working with spline and modifiers-Extrude, Lathe, Bevel profile  
Working with Modifiers-Bend,Taper, Twist,Noise,Ripple,Wave  
Modeling Operations-Pro Boolean,Loft  
Introduction to Poly Tools- exploring tools  
Introduction to Poly Tools- creating an object  
Image based Modeling - blocking  
Image based Modeling - detailing of elements  
Cyborg Modeling - Blocking whole body  
Cyborg Modeling - Body detailing  
Cyborg Modeling - Face detailing  
Cyborg Modeling - detailing Mechanical limbs  
Character Modeling - Creating Morph targets

### Max-Texturing

Introduction to Texturing & material editor  
Procedural mapping  
Basics of UV Mapping  
Basics of material  
Ray trace: Materials and Maps  
Advanced Material: Multi-Object with ink & paint  
Adv. Material: Blend, Composite, Matte shadow, Double sided  
Introduction to UV Unwrap  
Texturing a Background- camera projection  
Unwrapping a Cyborg  
Texturing a Cyborg - Face & body  
Texturing a Cyborg (Limbs & Accessories )

## PAPER-II

### Max-Lighting

Introduction to Standard Lights / Shadows  
Basic 3 Point Light Setup  
Day & Night lighting  
Introduction to Mental Ray: Global Illumination  
Mental Ray - Final Gather & IBL  
Mental Ray Shaders Architectural materials  
Mental Ray - Caustic (Reflective & Refractive)  
Lighting with Render elements  
Lighting a CG element with Live plate  
Lighting a CG environment with Live character  
Mental Ray - Day Light System with MR proxy  
Render to Texture

### Max-Rigging

Introduction to Rigging - Child parent relationship, Constraints  
Working with constraints  
Wire Parameters & Reaction Manager  
Introduction to Bones & creating bone setup



IK & FK controllers- Creating custom attributes  
Skinning  
Facial Rig (Morpher & bones setup)  
Rigging Cyborg Mechanical- Limbs  
Rigging Cyborg Mechanical - Accessories  
Introduction to Character Studio (Figure mode)

## **PAPER-III**

### **Max-Animation**

Introduction to Timeline & key frame animation  
Bouncing ball ( Working with Dope Sheet and Curve Editor )  
Pendulum swing  
Mechanical animation - vehicle  
Creating strong poses  
Rotomation  
Cyborg Walk Cycle  
Working with Facial Animation  
Character Studio - Footstep mode  
Character Studio - Key frame Animation  
Character Studio - Animation with Props  
Motion flow and motion mixer

### **Max-Dynamics & FX**

Intro to Particle System & Space Warps  
Parray and Particle Instancing  
Introduction to Event based particle system  
Working with Operators in particle flow  
Working with Test in particle flow  
Working with Materials in particle flow  
Introduction to Rigid Body Dynamics  
Working with advanced Rigid Body Dynamics  
Intro to Cloth (Cloth modifier)  
Creation of Garments (Garment Maker)  
Introduction to Hair & Fur  
Hair Styling and Rendering

**COURSE - B.A (ANIMATION & DESIGN) SCHEME**  
**SECOND YEAR**

SUBJECT CODE	SUBJECT NAME		THEORY			PRACTICAL			TOTAL
			TH	CCE	TOTAL	PR	CCE	TOTAL	
FC-	FOUNDATION COURSE	FC-22 ENGLISH	30	5	35				100
		FC-21 HINDI	30	5	35				
		FC-23 ENVIRONMENT STUDIES	25	5	30				
BAA201	CHARACTER DESIGN FOR ANIMATION	PAPER-I	42.5	7.5	50	40	10	50	150
		PAPER-II	42.5	7.5	50				
BAA202	BASICS OF 3D ANIMATION	PAPER-I	30	5	35	40	10	50	150
		PAPER-II	30	5	35				
		PAPER-III	25	5	30				
BAA203	BASIC COMPOSTING & VISUAL EFFECTS	PAPER-I	42.5	7.5	50				150
		PAPER-II	42.5	7.5	50				
		PAPER-III	42.5	7.5	50				

550