|| सा विद्या या विमुक्तये ||

स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड
"ज्ञानतीर्थ" परिसर, विष्णुपुरी, नांदेड - ४३१६०६ (महाराष्ट्र)

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY NANDED
"Dnyanteerth", Vishnupuri, Nanded - 431606 Maharashtra State (INDIA)
Established on 17th September 1994 – Recognized by the UGC U/s 2(f) and 12(B), NAAC Re-accredited with 'A' Grade

25
1994 - 2019
SILVER JUBILEE YEAR

ACADEMIC (1-BOARD OF STUDIES) SECTION

आंतर–विद्याशाखीय अभ्यास विद्याशाखेतील
विविध पदवी व पदव्युत्तर विषयांचे
सी.बी.सी.एस. पॅटर्नचे अभ्यासक्रम शैक्षणिक
वर्ष २०१९–२० पासून लागू करण्याबाबत.

प रि प त्र क

या परिपत्रकान्वये सर्व संबंधितांना कळविण्यात येते की, **दिनांक ३० एप्रिल २०१९ रोजी संपन्न झालेल्या ४३व्या मा. विद्या परिषद बैठकीतील ऐनवेळचा विषय क्र.७/४३–२०१९** च्या ठरावानुसार प्रस्तुत विद्यापीठाच्या **संलग्नित महाविद्यालयांतील आंतर–विद्याशाखीय अभ्यास विद्याशाखेतील पदवी व पदव्युत्तर स्तरावरील** खालील विषयांचे **C.B.C.S. (Choice Based Credit System) Pattern** नुसारचे अभ्यासक्रम शैक्षणिक वर्ष २०१९–२० पासून लागू करण्यात येत आहेत.

1) B.A.-I Year Physical Education
2) M.P.Ed.-I Year
3) B.Ed.-I & II Year
4) M.Ed.- I Year
5) B.A.-I Year-Music)
6) B.A.-I Year-Journalism & Mass Communication) (Optional I, II, III)
7) M.A.-I Year-Journalism & Mass Communication) (MA MCJ, I & II)
8) M.A./M.Sc.-I Year-Electronic Media
9) B.A.- I Year-Computer Animation and Web Designing
10) Master in Computer Animation, Vfx & Web
11) B.A.-I Year-Library and Information Science
12) B.A.-I Year-Home Science
13) B.A.-I Year-Fashion Design
14) M.A.-I Year- Fashion Design
15) B.S.W.-III Year

सदरील परिपत्रक व अभ्यासक्रम प्रस्तुत विद्यापीठाच्या **www.srtmun.ac.in** या संकेतस्थळावर उपलब्ध आहेत. तरी सदरील बाब ही सर्व संबंधितांच्या निदर्शनास आणून द्यावी.

'ज्ञानतीर्थ' परिसर,
विष्णुपुरी, नांदेड – ४३१ ६०६.

जा.क्र.: शैक्षणिक–०१ / परिपत्रक / पदवी व पदव्युत्तर–सीबीसीएस
अभ्यासक्रम / २०१८–१९ / ३८६१

दिनांक : २३.०५.२०१९.

स्वाक्षरित /–
उपकुलसचिव
शैक्षणिक (१–अभ्यासमंडळ विभाग)

प्रत माहिती व पुढील कार्यवाहीस्तव :

१) मा. कुलसचिव यांचे कार्यालय, प्रस्तुत विद्यापीठ.
२) मा. संचालक, परीक्षा व मूल्यमापन मंडळ, प्रस्तुत विद्यापीठ.
३) प्राचार्य, सर्व संबंधित संलग्नित महाविद्यालये, प्रस्तुत विद्यापीठ.
४) उपकुलसचिव, पदव्युत्तर विभाग, प्रस्तुत विद्यापीठ.
५) साहाय्यक कुलसचिव, पात्रता विभाग, प्रस्तुत विद्यापीठ.
६) सिस्टम एक्सपर्ट, शैक्षणिक विभाग, प्रस्तुत विद्यापीठ.

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

Faculty of Interdisciplinary Studies

Master in Computer Animation, Vfx & Web Syllabus

M.A First Year

Semester Pattern

(Choice Based Credit System)

[Effective from June 2019-20]

CBCS - Paper Pattern in the subject of

Master in Computer Animation, Vfx & Web

M.A First Year Semester Pattern-2019-20

Master in Computer Animation, Vfx & Web Syllabus

Contents

Semester – Ist

Paper No.	Title of Paper	CA Marks	ESE Marks	Practical Marks
1	Advance Digital Art	35	40	50
2	Drawing for Animation	35	40	50
3	Character Design And Advanced Modeling	35	40	50
4	Roto and Stereo Paint	35	40	50

Semester – IInd

Paper No.	Title of Paper	CA Marks	ESE Marks	Practical Marks
5	Classical Animation	35	40	50
6	2D Digital Animation	35	40	50
7	3D Animation Technique	35	40	50
8	2D and 3D Compositing	35	40	50

S.R.T.M. UNIVERSITY, NANDED

Choice Based Credit System (CBCS)

Course Structure (New Scheme)

Faculty of Interdisciplinary Studies

M.A First Year Semester Pattern-2019-20

Master in Computer Animation, Vfx & Web

Semester – I[st] & IInd

Semester	Core Course	Paper No	Name of Paper	Lecturer / Week	Total No. of Lecturers	CA	ESE	Practical	Total Marks	Credits
Semester-I	MAVW 1	1	Advance Digital Art	6	72	10	40	50	100	4
	MAVW 2	2	Drawing for Animation	6	72	10	40	50	100	4
	MAVW 3	3	Character Design And Advanced Modeling	6	72	10	40	50	100	4
	MAVW 4	4	Roto and Stereo Paint	6	72	10	40	50	100	4
			Total-I	**24**	**288**	**40**	**160**	**200**	**400**	**16**
Semester-II	MAVW 5	5	Classical Animation	6	72	10	40	50	100	4
	MAVW 6	6	2D Digital Animation	6	72	10	40	50	100	4
	MAVW 7	7	3D Animation Technique	6	72	10	40	50	100	4
	MAVW 8	8	2D and 3D Compositing	6	72	10	40	50	100	4
			Total-II	**24**	**288**	**40**	**160**	**200**	**400**	**16**
			Total-I&II	**48**	**576**	**80**	**320**	**400**	**800**	**32**

Aims & objective of the program

Aims:

M. A. V. W. is a four semester full time program, to equip the students with the tools & techniques balanced with theory & practical knowledge which has today taken the shape of Multimedia industry. We focus on providing high end media and entertainment training. the Animation has seen the entry of many global majors who have tapped into India's talent pool for offshore delivery of services. The websites has become important resource and attached in many aspects to our life. Nowadays, websites becomes an interactive platform that is used for receiving information as well as providing information.

Objective:

- To develop student's aesthetic, intellectual & technological abilities through programs that integrates theory & practical.
- To offers students a rigorous & innovative curriculum taught by faculty with outstanding academic & industry experience.

Duration of the course

1) The duration of the Master in Animation, VFX and Web course shall be of two academic years consisting of four semesters with university examination at the end of each semester namely.

a. Master in Animation, VFX and Web, semester I exam

b. Master in Animation, VFX and Web, semester II exam

c. Master in Animation, VFX and Web, semester III exam

d. Master in Animation, VFX and Web, semester IV exam

2) The examination shall be held at such places & dates which are notified by the university.

Note:

- Total Credit for First Year : 32
- Continue Assessment : 10 Marks
- End of Semester Examination : 40 Mark
- End of Semester Practical Examination : 50 Marks
- Each Theory with Practical is of 4 Credits

Master in Computer Animation, Vfx & Web (MAVW)

It is a Post Graduate (PG) Programme of 2 Years (4 Semesters) duration.

Eligibility for Admission:

A candidate for being eligible for admission to the first year Degree in Master in Computer Animation, Vfx & Web must have passed the B.A Computer Animation & Web Designing any University.

EXAMINATION PATTERN

CA (Continue Assessment) - 10 Marks

Marks Distribution

- 10 Marks for home assignment

ESE - Theory Paper - 40 Marks

Marks Distribution

- Question No 1 is compulsory = 10 Marks
- Question No 2 to 6 solve any 3 = 30 marks

Practical's - 50 Marks

Marks Distribution

- 30 Marks for Practical 2 Questions (15 + 15)
- 5 Marks for Oral
- 15 Marks for Practical Record Submission (CD/DVD/ONLINE)

Master in Computer Animation, Vfx & Web

Semester – Ist MAVW 1

Advance Digital Art

Theory & Practical Paper

Total Credits 04   **No. of Lectures 72**

CA	ESE	Practical	Total
10	40	50	100

Learning Objective:

- o The designer should have the skill to use and combine several things to come up with a final product that showcases the right result.
- o A good graphic design can be created by a designer with real talent and a clear goal of the message that should be expressed to the target audience.

Utility:

- o Students will be able to demonstrate a basic understanding of three important design elements: color, shape, and space.
- o Design original commercial art, combining text and images to successfully communicate messages to a target audience.

Pre-requisites: Basic Computer Knowledge

Theory

Unit 1: Graphic Design: Create idea for Graphic Design Project, Photos for Graphic Design Project, Decide Title and Copy Matter for Graphic Design, Draw Composition and Layout Sketches, Select and Use Color Themes for Graphic Design, Paper Sizes.

Unit 2: Photoshop: Understanding Raster Graphics, Understanding Pixels, Understanding Image, Understanding Layers, Image Size and Resolution, Brushes, Styles and Textures, Using Filters for effects, Color Adjustment, Image Editing for Print Projects, Image Editing for Web.

Unit 3: Illustrator / Corel Draw: Understanding Vector Graphics, Draw and Edit Line and Shapes, Understanding Object, Understanding Colors, Basic Transformations, Create Perfect Shapes, Advance Transformations, Layout & Composition Tools, Create Various Vector Effects, Advance Color Study, Object Drawing and Painting

Unit 3: InDesign : The Workspace, Creating a Document, Managing Pages, Text, Graphics, Formatting Objects, Managing Objects, Transforming Objects, Character Formatting, Paragraph Formatting, Styles, Tables, Color, Exporting, Printing

Unit 5: Branding - Live Study Projects: Logo Design Corporate ID (V Card, Letterhead & Envelope), Stationery (Invoice, Receipt etc.), Invitation or Greeting Card, Newspaper Ad, Magazine Ad, Brochure, Leaflet (Flyer) or Folder. Hoarding Design, Book Publication Design, Web Layouts

Practical

Name of Practical

1. Books, Magazine, News papers
2. Visual Identity such as Letterhead, business card, Brand Guide, Logos
3. Marketing Materials: Pamphlet, Brochures, Postcard, one-sheet, Posters
4. Product Packing and Labels
5. Presentations
6. Typography
7. Web Layouts

Software: Adobe Photoshop**,** Adobe Illustrator, Corel Draw, In Design

References Books:

o   Graphic Design Visionaries
o   Grid Systems in Graphic Design
o   The Graphic Design Idea Book
o   Paula Scher: Works Editors: Tony Brook & Adrian Shaughnessy
o   The Visual History of Type Author: Paul McNeil
o   How To Author: Michael Bierut
o   Draplin Design Co: Pretty Much Everything Author: Aaron Draplin
o   Logo: The Reference Guide to Symbols and Logotypes (mini)
o   New Perspectives in Typography
o   Designing Brand Identity: An Essential Guide for the Whole Branding Team
o   The Elements of Typographic Style (v4)
o   How to do great work without being an asshole
o   50 Best Logos Ever

Career Option:

o   Advertising Art Director
o   Creative Director
o   Production Designer
o   Graphic Designer
o   Illustrator
o   Printmaker

(CBCS)

Master in Computer Animation, Vfx & Web

Semester – Ist MAVW 2

Drawing for Animation

Theory & Practical Paper

Total Credits 04			No. of Lectures 72

CA	ESE	Practical	Total
10	40	50	100

Learning Objective:

o To enable students to manage Animation Projects from its Conceptual Stage to the final product creation.
o To train students in applying laws of human motion and psychology in 2-D or 3-D characters.
o To develop expertise in life-drawing and related techniques.

Utility:

o To familiarize the students with various approaches, methods and techniques of Animation Technology.
o To develop competencies and skills needed for becoming an effective Animator.
o Mastering traditional & digital tools to produce stills and moving images.

Pre-requisites: No

Theory

Unit 1: Introduction of Drawing - Fundamentals of Art, Basic Techniques about figure drawing, Cartooning, Composition of a Scene or Background and Designs. Basic Drawing Practice - Basic Shape, Basic drawing technique, Free Hand Practice

Unit 2: Understanding Lights, Shading and Shadow - Study of light and shade in pencil of still life object, drawing still life objects in outline by pen and pencil, Study of still life objects in pen and ink to trace the light and shade

Unit 3: Introduction of Perspective - One Point Perspective, Two Point Perspective, Learning three point perspectives, Background designs with perspective - Drawing outdoor scenes showing one point perspective, drawing outdoor scenes showing two point perspectives, drawing outdoor scenes showing three point perspectives

Unit 4: Character Anatomy - Drawing the male figure with proper proportion , Drawing the female figure with proper proportion, Drawing the male face with proper proportion, Drawing the child face with proper proportion

Unit 5: Scripting & Story Board Design, Model Sheet, Character Turnaround Sheet

Practical

Practical List

- Drawing of anatomy
- Character Design And development
- Drawing of perspective
- Scripting of Story
- Design of story Board

Software: No software required

References Books: The Complete Animation course by Chris Patmore, By – Barron's Educational Series (New York)

Anatomy of the Artist – Thompson & Thompson

Career Options:

- Storyboard Artist
- 2D Animator
- Project Coordinator
- Character Concept Artist
- Concept Artist

(CBCS)

Master in Computer Animation, Vfx & Web

Semester – Ist MAVW 3

Character Design and Advanced Modeling

Theory & Practical Paper

Total Credits 04			No. of Lectures 72

CA	ESE	Practical	Total
10	40	50	100

Learning Objective:

- To be a good 3D Modeler
- Doing freelance projects of 3D Character Models etc

Utility:

- 3D modeling is a technique in computer graphics for producing a 3D digital representation of any object or surface.
- An artist uses special software to manipulate points in virtual space (called vertices) to form a mesh: a collection of vertices that form an object.

Pre-requisites: Knowledge of 3Ds Max

Theory

Unit 1: Introduction to character and character designing, Design Goals and Reference Images, Features: Eyes, ears, nose, Mouths

Unit 2: Anatomy and Proportions Using Silhouettes, Stick Figures, and Mannequins. Focus on Gender Differences, Body Type Differences, Proportions Characteristic of a Target Art Style, and Variations From Human

Unit 3: Intro to tools and techniques of Modeling, Research of Various character from animation movies, comic books, Modeling of Props.

Unit 4: Advance Environment Modeling, Modeling of vehicle**,** Theory and Technique of High and Low Poly Modeling.

Practical

Practical List

- Introduction to character and character designing
- Create Reference Images (Eyes, ears, nose, Mouths, Torso)
- Object properties, Hierarchies, Pivots
- Character Development Sketching (Front, Side View)
- Stick Figures
- Techniques of Modeling
- Character Modeling (animation movies, comic books)
- Advance Environment Modeling
- Modeling of vehicle

Software: Autodesk Maya

References Books:

- Scott Spencer,ZBrush Character Creation: Advanced Digital Sculpting,2011.
- Digital Character Design and Painting: The Photoshop CS Edition by Don Seegmiller
- Eric Allen, Kelly L. Murdock,Body Language: Advanced3D CharacterRigging–2011

Career Options:

- In film and television production there are jobs for Modeling.
- The games industry is a big employer, and for any major game title, more than half of the production budget will go on art production.

(CBCS)

Master in Computer Animation, Vfx & Web

Semester – Ist MAVW 4

Roto and Stereo Paint

Theory & Practical Paper

Total Credits 04		**No. of Lectures 72**	

CA	ESE	Practical	Total
10	**40**	**50**	**100**

Learning Objective:

- Read and understand the user and technical specifications of equipment and software.
- Gather and watch raw footage/material.
- Gather references of work-products and productions that could provide ideas and help conceptualize possibilities for post-production

Utility:

- Preparing materials and equipment for the post production process Managing interim work-products during post-production Ensuring work-products are distribution/exhibition ready as per the required technical specifications

Pre-requisites: Knowledge of Photoshop, After Effects, Fusion

Theory

Unit 1: Understanding rotoscopy objectives, which could includeTracing live action images for Animation Creating depth maps for Stereo conversion Removing faults/wires in live action footage

Unit 2: Rotoscoping -Uses and advantages of rotoscoping, Creating rotos with splines, Hierarchical parent and child roto shapes, Interpolation technique, Keyframe rotos, Final inspection, Rotoscope motion blur and semi transparency

Unit 3: Mask: Creating masks, Mask points, Mask feather tool, Animating masks, Mask by painting. Track mattes: Luma matte, Alpha matte, Traveling matte, RGBA. Motion blur. RAM Preview: Setting resolution for preview.

Unit 4: Tracking: Motion tracking, Motion stabilization, Camera tracking . Problems faced during tracking, Time-stretching, time-remapping and time warp effects.

Unit 5: Uses of pre-composition and nesting. Puppet tools. Effects and Presets: Applying effects from effects and preset panel, Compound effects. What is expressions? Applying simple expressions.

Practical

Name of Practical

- Make Clean Plate In Photoshop
- Sequence Paint In photo shop
- Clean Plate In nuke
- Sequence Paint in Silhoutte
- Vfx And Stereo Roto In Silhoutte , Nuke, Fusion

Software: Silhoutte, Nuke

References:

- Rotoscoping: Techniques and Tools for the Aspiring Artist Paperback
- Inside VFX: An Insider's View Into The Visual Effects And Film Business (Kindle Edition)
- artiste Matte Painting 3 (Hardcover)

Career Options for a Subject:

- Stereo Roto Artist
- VFX Roto Artist
- Paint Artist
- Rig Removel Artist

M.A First Year Semester Pattern-2019-20

(CBCS)

Master in Computer Animation, Vfx & Web

Semester – IInd MAVW 5

Classical Animation

Theory & Practical Paper

Total Credits 04   **No. of Lectures 72**

CA	ESE	Practical	Total
10	40	50	100

Learning Objective:

- Exploring different character animation technique.
- To enable students to manage Animation Projects from its Conceptual Stage to the final product creation.
- To train students in applying laws of human motion and psychology in 2-D or 3-D characters.
- To develop expertise in life-drawing and related techniques.

Utility:

- Understand and apply techniques classical animation
- Acquire knowledge about various principles of animation and its usage.
- Will gain the knowledge of handling a project at industrial requirement.

Prerequisites: No Required

Theory

Unit 1. Introduction to animation, History of animation: Types of animation: case study, Understanding and learning the Principles of animation through the view of different animation films: case study

Unit 2: Frame by frame animation, Creating frame by frame animation for a short animation, Creating simple frame by frame animation for a short animation

Unit 3: Understanding and Creating different rough walk cycle on paper using ball and leg character normal walk. , Understanding the walk cycle techniques and drawing the smart scribbles for sketch segmentation thumbnails of the walk cycle , Drawing the basic walk cycle exercises on various style action basics , Drawing the finalized walk cycle concept., Drawing the finalized concept

Unit 4: Understanding and Creating different rough walk cycle on paper using ball and leg character stylized walk, Understanding the walk cycle techniques and drawing the smart

scribbles for sketch segmentation thumbnails of the walk cycle , Drawing the basic walk cycle exercises on various style action basics , Drawing the finalized walk cycle concept.Drawing the finalized concept

Unit 5: Study Of the basic 12 Animation principals.Squash and stretch,Anticipation Staging Straight ahead action and pose to poseFollow through and overlapping actionSlow in and slow outArcSecondary actionTimingExaggerationSolid drawingAppeal

Practical

Name of Practical

- Principle of Animation.
- Lip synchronization.
- Expressions.
- Walk through. of Human beings Male, Female, Children, Kids and even New born infant.
- Follow-throughs and secondary actions.
- IB and CU. (In-betweens and Cleanups).
- Showreel

Software: No

References: Timing for Animation by John Halas.,

The Animator's Survival Kit by Richard E. Williams

Career Options for a Subject:

Career Options for a Subject:

- Storyboard Artist
- 2D Animator
- Project Coordinator
- Character Animator
- Concept Artist

2D Digital Animation

Theory & Practical Paper

Total Credits 04			**No. of Lectures 72**

CA	ESE	Practical	Total
10	40	50	100

Learning Objective:

- Understand and apply techniques about flash animation
- Acquire knowledge about various principles of animation and its usage.
- Will gain the knowledge of handling a project at industrial requirement.

Utility:

- At the end of the course the student will learn basic concepts of 2D Animation, Storyboarding and create animated digital multimedia content for media using the tools and techniques as available in the Adobe Flash software.

Prerequisites: Knowledge of Drawing, Photoshop

Theory

Unit 1: Anatomy of story, casting the characters, exaggerating personality, Flash animation: Setting up a good FLA, Frame by frame animation and animating with tweens

Unit 2: Understanding the Flash interface, setting stage dimensions, Drawing tools, pen tools and other necessary tools to create any drawing in the frames.

Unit 3: Drawings to symbols, Different types of symbols, Organizing library, Organize character to different symbols.

Unit 4: Introduction to timeline, Classic tween, Shape tween, Keyframes, Ease in and Ease out using edit ease graph, Document setup, Layers, Layer properties, Mask layer, Guide layer.

Unit 5: Import sound to flash, Lip sync cartoon character to dialogue, Basic walk cycle, Run cycle, Jump cycle using cartoon character symbols

Practical

Name of Practical

1. Drawing Basic Objects in Adobe Flash
2. Draw a cartoon character in Adobe Flash
3. Drawing Basic Scenes in Adobe Flash
4. Creating simple animation with shape, classic & motion tweening.
5. Make a cartoon character using symbols for animation
6. Bouncing ball animation in Adobe Flash
7. Do dialogue animation of 10 seconds
8. Basic walk cycle, Run cycle using cartoon character symbols
9. Creating Effect in Adobe Flash
10. Rendering Some Animation Scenes in Adobe Flash

Software: Adobe Flash, Adobe Animate

Reference Book:

o   The Animator's Survival Kit by Richard Williams
o   The Art of Flash Animation: Creative Cartooning by Mark Smith
o   Flash Cartoon Animation: Learn from the Pros by Glenn Kirkpatrick and Kevin Peaty
o   Tradigital Animate CC: 12 Principles of Animation in Adobe Animate by Stephen Brooks

Career Options:

o   2D Flash Animator
o   Character Animator
o   Graphic Animator
o   White Board Animator
o   2D Game Animator

3D Animation Technique

Theory & Practical Paper

Total Credits 04 **No. of Lectures 72**

CA	ESE	Practical	Total
10	40	50	100

Learning Objective:

- To be a good Animator
- Doing freelance projects of Animation, Adds etc.

Utility:

- Classroom & Lab Training in Vital features of animation, covering stages from Storyboarding to creation of the final movie.
- Be able to make Smooth 3d Animation in short films and Animated films.

Prerequisites: Knowledge of 3Ds Max

Theory

Unit 1: What is mean by Animation – Why we need Animation – History of Animation – Uses of Animation – Types of Animation – Principles of Animation – Some Techniques of Animation

Unit 2: 3D Animation & its Concepts – Types of 3D Animation – Skeleton & Kinetic 3D Animation – Texturing & Lighting of 3D Animation – 3D Camera – Applications & Software of 3D Animation.

Unit 3: Acting For Animation – Create References For Animation – Using References – Camera Animation

Unit 4: Concept Development –Story Developing –Audio & Video –3D Animated Movies.

Practical

Name of Practical

- Animation Overview
- 12 Animation Principles
- Advanced Bouncing Ball with Slide

- Advanced Squash & Stretch Ball
- Squash & Stretch Ball
- Reference for Animation
- Animate Character using Reference (Pull or Push, etc.)
- Graph Editor
- Dope Sheet
- 3D Camera Animation
- Camera Animation using Motion Path

Software: Autodesk Maya

References Books:

- PRINCIPLES OF MULTIMEDIA – Ranjan Parekh, 2007, TMH. (Unit I, Unit V)
- Multimedia Technologies – Ashok Banerji, Ananda Mohan Ghosh – McGraw Hill

Career Options for a Subject:

- 3D Animation Artist in Film Production & Add.

2D and 3D Compositing

Theory & Practical Paper

Total Credits 04				No. of Lectures 72

CA	ESE	Practical	Total
10	40	50	100

Learning Objective:

- Learning advanced techniques for compositing and visual effects development; including CGI elements, camera match moving, multi-pass rendering and digital compositing.

Utility:

- Compositing is an essential part of visual effects, which are everywhere in the entertainment industry today in feature films, television commercials, and even many TV shows. And it's growing. Even a non-effects film will have visual effects.
- It might be a love story or a comedy, but there will always be something that needs to be added or removed from the picture to tell the story.

Prerequisites: Knowledge of Maya, After Effects

Unit 1: Procedures: Keying, Rotoscopy, Tracking And Stabilizing–Parenting –Masking –Alpha –Parallax –Color Correction –Adding Text –Render And Export.

Unit 2: Introduction to color correction tools with sin city FX example, Day to Night (extract luma matte), mountain Lava FX, Use of Deep pixel tools using channel Boolean and openexr file, Compose 3d render passes, tools to remove chroma, Basic chroma remove, Garbage masking for keying, chroma remove in grainy footage, Part by part chroma remove, create macro design according your pipeline, Benefit of Macros, one point, two point and four point tracking, Stabilize shot, Extend the tracking information, Rotoscope using tracking Technique, introduction to 3D tools, Render 3d space, Interaction 3d tools with 2D tools, create shadow for a chroma shot using camera and lighting

Unit 3: Camera projection using 3d tools in fusion, Import max/Maya file in to fusion and use them for camera projection, introduction to particle tools. 2D v/s 3D particle, Basic types of Emitters, Workflow of 3D and 2D particle system, Rain, snow effects using different forces tools, water drops on glass, Fireworks, Blood on wall,

Unit 4: Introduction to 3D Camera Tracking and Match Moving, Overview of Autodesk Match mover Interface, Working with Camera and Lens Distortion Auto Tracking -Free Move shot, AutoTracking -Zoom shot (Focal length variable),

Unit 5: Crowd multiplication using particle system, Ground ripple effect, How paint tool work, Cloning, Stamping, Completed Clean plate with moving shot. Wire and Rig remove, Wire or rig remove from the face or body

Practical

Name of Practical

1. One Demo reel Including multiple Shots

Software: Nuke, Fusion, after effects

References:

- Adobe® After Effects® CS6 Visual Effects And Compositing Studio   Techniques: Mark Christiansen
- Secrets of Hollywood Special Effects: Robert E. McCarthy
- Industrial Light & Magic - The Art of Special Effects: Thomas G. Smith
- The Language of Visual Effects: Micheal J. McAlister

Career Options for a Subject:

- Compositing Artist
- VFX Artist

AJ-11-2019

FACULTY OF INTERDISCIPLINARY STUDIES

M.A (First Semester) EXAMINATION

MARCH/APRIL 2019

MASTER IN COMPUTER ANIMATION, VFX & WEB

(Advance Digital Art)

(Wednesday, 20,03,2019)	Time: 10.00 a.m. to 12.00 noon

Time-2 Hours   *Maximum Marks – 40*

N.B. :- (i)   Q. No. 1 is compulsory.

     (i)   Solve any *three* questions out of last 5 questions

1.   10

2.   10

3.   10

4.   10

5.   10

6.   10