Department of Animation Science

Revised Syllabus of III Year Diploma Program (UG)

(Keep one of above as per year)

Title of Program: Third Year Diploma in Film Making

Syllabus Structure (UG)

Year	Semester	Course No.	Course Code	Contact Hours	Credits (1Credit=15 H)	Total Marks
3	V	CT V	DA-T 505	30	2	75
		CLV	DA-L 505	60	2	75
	VI	CT VI	DA-T 606	30	2	75
		CL VI	DA-L 606	60	2	75
	Annual	CP III	DA-P 303	60	2	100
	Industrial and or Incubation and or Research and or Field Training			30	1	-
		Total		**270**	**11**	**400**

D: Diploma, *: Departmental Code (C: Chemistry, MI: Microbiology, CSE: Computer Science (Entire), etc)

C: Course, T: Theory, L: Lab (Practical), P: Project

Total No. of Courses: 6 (Theory: 02, Practical: 02, Project: 01)

Theory and Practical: Semester, Project: Annual

Semester V

CT-III: DA-T 505: Title: Introduction to MatchMove

(Contact Hrs: 30 Credits: 2)

Learning Objectives:

Students will be able to learn

1. Studying the footage and Tracking in matchmove interface.
2. Creating tracker, building Scene and working with timeline panel.

Credits (Total Credits 2)	Semester V	No Of hours
Unit I	**Introduction to MatchMove**	**15**
	Introduction to the interface, importing Footage, Export buffer compression file, Auto Tracking, Camera Solve, 2D tracking, Building 2d Tracker, Tracking 2D nodal Shot, Tracking Free Moves, Working With 2D marker, Color Correction for tracker.	
Unit II	**working with timeline**	**15**
	Object Tracking, Building small scene from reference image, forward and backward key Tracing, Color balancing footage parameter, Footage attribute editor, working with timeline, Key frame Setting, Scene orientation, Auto Tracking.	

Learning Outcomes:

After completion of the unit, Student is able to learn

1. Auto tracking, 2D tracking and Color correction with help of raw footage.
2. Forward and backward tracking with help of timeline and scene orientation.

Reference Books:

1. Match Move 2020 help Manual
2. Autodesk Maya User Manual

CL-III: DA - L505 (Practical):

(Contact Hrs: 60 Credits: 02)

Learning Objectives:

Students will be able to learn

1. Understanding motion tracking workflow with help of 3D Equalizer 4.
2. Capturing and importing tracker in video Sequence.
3. Understanding of color correction and parameter adjustment.
4. Working with virtual camera technique with proper lens size.

(Minimum 4)

Credits (Total Credits 2)	**Semester V (Lab)** **DA - L505: Introduction to MatchMove**	No of hours per Unit Credits
	List of Practical's (15) 1. Layout arranging the footage in 3d equalizer 2. Layout buffer the footage in 3d equalizer 3. Understanding Lens distortion in 3d equalizer 4. CC color correction for tracking in 3d equalizer 5. 2d tracking on footage in 3d equalizer 6. Edit 2d tracks in 3d equalizer 7. Working with 2d Marker track in 3d equalizer 8. Working with 2d Pattern track in 3d equalizer 9. Working with End point Forward and backward key tracking in 3d equalizer. 10. Adjusting Color balancing footage parameters in 3d equalizer. 11. Working with parameter adjustment window in 3d equalizer. 12. Working with footage attribute editor in 3d equalizer. 13. Working with Timeline key frame setting in 3d equalizer. 14. Calculation all form of scratch in 3d equalizer 15. Calculation all fine-tune all objects in 3d equalizer.	**2**

Learning Outcomes:

After completion of the unit, Student is able to

1. Working with rolling shutter and lens distortation.
2. Working in matchmove interface with help of Scratch and fine-tuning with help of parameter.

Reference Books:

1. Matchmove User Manual-2020
2. VFX Fundamentals-Wallace Jackson

Semester VI

CT-VI: DA-T 606: Title: MatchMove For Production

(Contact Hrs: 30 Credits: 2)

Learning Objectives:

Students will be able to

1. Understanding track point, working with distort footage.
2. Exporting footage for Autodesk Maya.
3. Adjusting tracker for various position.

Credits (Total Credits 2)	Semester V	No Of hours
Unit I	**Introduction to MatchMove**	**15**
	Fine-Tuning object, Curves Setting, Track Distort Footage, Solve Distort Footage, Working with lineup in 3DE4, Exporting to Maya, Add tracker point in Maya, Camera Setting and Attributes, Track using camera.	
Unit II	**working with timeline**	**15**
	Model Creation, Applying Texture, Render Setting for Footage, Basic Object Tracking, Tracking Background, Adjusting tracker in Foreground, Middle and Background , Placing and rendering Cones, Wireframe Mode, Final Output Setup and Export.	

Learning Outcomes:

After completion of the unit, Student is able to

1. Integration of match moving software and Maya.

2. Refining major and minor error.

3. Understanding Modeling, Texturing and Rendering Scene for Matchmove.

Reference Books:

1. Nuke User Manual
2. 3DEqualizer4 User Manual

CL-IV:DA- L606: **Title (Practical):**

(Contact Hrs: 60 Credits: 02)

Learning Objectives:

Students will be able to

1. Understand integration of 3D elements into real world footage.
2. Understanding of object tracking and background tracking.
3. Working with Polygon in Maya and texturing.
4. With help of Wireframe understanding of real world simulation.

List of Practical's (15)

Credits (Total Credits 2)	**Semester VI (Lab)** **DA – L 606: MatchMove For Production**	No of hours per Unit Credits
	1. Calculate filters all curves setting in 3d equalizer. 2. Working with auto tracking in 3d equalizer 3. Working with Lineup in 3d equalizer 4. Export the footage to MAYA. 5. Adding tracking point to the MAYA 6. Adjust the camera focal length and its attribute 7. Set up the whole tracking point with camera 8. Create a modeling set up using polygon. 9. Apply the texture material to the model 10. Set up the render setting of the footage 11. Create basic object tracking 12. Creating basic Background tracking 13. Render the cones in 3d scene. 14. Render the wireframe mode. 15. Create a basic final video of the render images.	**2**

Learning Outcomes:

After completion of the unit, Student is able to

1. Rendering the cones and Wireframe for final output
2. Creating Showreel with for final presentation purpose.
3. Final Video output for project.
4. Working with object tracking footage match moving a shots in scene sequence.
5. Garbage masking the footage to isolate track areas.

Reference Books:

1. V3R5_Manual
2. VISUAL EFFECTS IN A DIGITAL WORLD BY KAREN E. GOULEKAS

CP-II: D *P303: Project

(Contact Hrs. 30, Credits: 1)

Industrial and or Incubation and or Research and or Field Training

(Contact Hrs. 30, Credits: 1)

BOS Sub-Committee

1. Mr. Pawar M.B. — Department of Animation Science
2. Mr.Bhambure R.V. — Department of Animation Science

Expert Committee

1. Mr. Chavan A.S. - Tiranga Animation College, Baramati.
2. Mr. Kotteswaran. N. - Image Infotainment Ltd., Hyderabad