Karmaveer Bhaurao Patil University, Satara

Syllabus for

Diploma III (Film making)

Under

Faculty of Science and Technology

(As per NEP 2020)

With effect from Academic Year 2025-2026

Department of Animation Science

Preamble:

Part Time Diploma in film making is combination of Photography, cinematography, sound designing and editing, film editing being coordinated and conducted by the Department of Animation Science. Animation is a lead Course in today's world. It has very good prospects and it gives a broad platform to student creativity. The course has wild scope. By considering the need of different industries and present scenario in animation industry the syllabus is designed. This course is design for undergraduate students of Karmaveer Bhaurao Patil University, Satara. The syllabus is designed to assess candidates' knowledge of photography as a visual means of communication, as well as their skill in the creative utilization of photographic equipment. It is also meant to evaluate their knowledge of the socio-economic potentials of photography advertisement and film making. The student who don't no the ABC of film making will be able to understood and work independently in the industrial world after completion of this course.

Program Objectives of the Course:

1) To create a supportive learning environment that applies new knowledge through teaching, learning and research.
2) To provide the knowledge about different development phases of Animation movies to students.
3) To develop animation-oriented attitude amongst students.
4) Student will be able to critically evaluate computer graphics and the mixed media.
5) They will know basic aesthetic principles and concepts, and the production process.
6) Learn the basic design and photo editing
7) Develop a Documentary film
8) Develop designing of Visiting card, Flex, Boucher's etc.
9) To learn Advance Film Editing effects.
10) Develop the Designing and Film editing Skills

Program Outcomes:

1) Students recognize and evaluate critical and aesthetic issues within computer graphics and the mixed media.
2) Key skills of audio and video editing.
3) Camera techniques and operations.
4) Students will get detail knowledge of various biomedical instruments Electrodes, other tools and can handle it properly.
5) Design and utilize pre-production and post-production workflows.
6) Demonstrate knowledge and skill in digital cinematography, sound design, and editing.
7) Employ basic lighting techniques for moving image production.
8) Evaluate the history of cinematic style and the language of film in narrative, documentary, and experimental filmmaking.
9) Assemble a crew for on-set or location based shoots.
10) Employ editing and sound design to create mood, concept, or character.
11) Demonstrate knowledge of cinematography, including advanced compositional methods, camera movement, and lighting.
12) Evaluate and reference traditional and alternative forms of narrative film structure and. style.
13) Recognize role of post-production within overall time-based media.
14) Understand historical context of editing theory.
15) Record, edit, and manipulate audio for picture.
16) Operate audio software effects plugins.

Department of Animation Science

Revised Syllabus of Diploma Program (UG)

II Year Diploma Program

1. Title: Diploma in Film Making
2. Year of Implementation: 2020
3. Duration: One Year
4. Pattern: Semester
5. Medium of Instruction: English
6. Contact hours: 7 hours/week
8. Structure of Course:

Course Structure of Diploma Program (UG)

Year	Semester	Course No.	Course Code	Contact Hours	Credits (1Credit=15 H)	Total Marks
	I	CT I	DAST 101	30	2	75
		CL I	DASL 101	60	2	75
	II	CT II	DAST 202	30	2	75
		CL II	DASL 202	60	2	75
	Annual	CP I	DASP 101	30	1	50
	Total			210	9	350
2	III	CT III	DAST 303	30	2	75
		CL III	DASL 303	60	2	75
	IV	CT IV	DAST 404	30	2	75
		CL IV	DASL 404	60	2	75
	Annual	CP II	DASP 202	30	1	50
	Industrial and or Incubation and or Research and or Field Training			30	1	-
	Total			240	10	350
3	V	CT V	DAST 505	30	2	75
		CLV	DASL505	60	2	75
	VI	CT VI	DAST 606	30	2	75
		CL VI	DASL 606	60	2	75
	Annual	CP III	DASP 303	60	2	100
	Industrial and or Incubation and or Research and or Field Training			30	1	-
	Total			270	11	400
Total				720	30	1100

D: Diploma : Departmental Code (AS: Animation Science)

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

Total No. of Courses: 10 (Theory: 06, Practical: 06, Project: 03) Theory and Practical: Semester, Project: Annual

Evaluation Pattern of Diploma Program

Theory Assessments					Practical Assessments				Annual Project
Internal Evaluation			End Semester Evaluation		Internal Evaluation		End Semester Evaluation		Sem II/IV/VI
DISE	Attendance	Total	ESE	Total	DISE	Attendance	PDESE	Total	Total
30	05	35	40	75	30	05	40	75	50

Semester V

CT V: DAST 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 V : DASL 505 (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.

Credits (Total Credits 2)	**Semester V** **(Lab)** **DASL 505: 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: DAST 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 VI: DASL 606: **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) DASL 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 III: DASP 303: 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.

Mr. Kotteswaran. N. - Image Infotainment Ltd., Hyderabad