

FACULTY OF COMPUTER APPLICATIONS
B.Sc.(IT) (Animation, Vfx and Game Design)

- **Sem** : 5
- **Subject Code** : 05BA0406
- **Subject** : 05BA0504

- **Course Objectives** : Students will be able:
 1. Understand the basic principles and workflow of visual effects using Adobe After Effects.
 2. Learn motion graphics, keying, tracking, and compositing techniques.
 3. Create VFX shots involving green screen removal, rotoscoping, and layering.
 4. Integrate 2D/3D elements and use effects for dynamic scene creation.
 5. Develop portfolio-ready VFX compositions suitable for short films and games.

- **Prerequisites** : Basic understanding of video formats, Photoshop, and storytelling.

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PRACTICALS

Unit No	Topics Covered	No of lectures required
1	<p>Introduction to After Effects</p> <ul style="list-style-type: none"> ▪ Interface, composition settings, layers, timeline. ▪ Working with Keyframes – Animation basics, easing, motion paths. ▪ Effects & Presets – Applying and customizing effects. ▪ Importing Assets – Footage, images, sound, and project organization. ▪ Basic Compositing – Layer blending, masks, and pre-compositions. 	30
2	<p>Green Screen Keying</p> <ul style="list-style-type: none"> ▪ Using Keylight 1.2 for chroma keying. ▪ Rotoscoping Techniques – Using the Roto Brush and manual masking. ▪ Motion Tracking – One-point and two-point tracking, stabilizing footage. ▪ Match Moving – Matching movement of elements with background footage. ▪ Time Remapping – Speed ramping, slow motion, and freeze frames. 	30

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3	<p>VFX Integration</p> <ul style="list-style-type: none"> ▪ Adding muzzle flashes, explosions, fire, smoke, etc. ▪ Working with 3D Layers – Cameras, lights, and null objects in 3D space. ▪ Particle Systems – Using CC Particle World, Saber, and third-party plugins. ▪ Matte Painting Basics – Integrating background elements with live-action. ▪ Color Correction & Grading – Adjusting levels, curves, LUTs for mood. 	30
4	<p>Render and Export Settings</p> <ul style="list-style-type: none"> ▪ Output modules, codecs, and formats. ▪ VFX Shot Breakdown – Planning, execution, and layering explanation. ▪ Compositing for VFX Showreel – Presenting work with breakdowns. ▪ Group Project / Final Scene – A complete VFX shot with all learned techniques. ▪ Portfolio Prep – Final output presentation for demo reel. 	30

Course Outcomes:

1. Students will demonstrate proficiency in navigating After Effects and using VFX tools.
2. Students will produce basic to intermediate VFX shots using keying and tracking.
3. Students will apply motion tracking and compositing techniques for shot integration.
4. Students will enhance visuals through particle effects and color grading.

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5. Students will prepare a polished VFX sequence for their professional showreel

Course Outcomes – Program Outcomes Mapping Table:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	-	M	-	H	L	-	-	L	-	M	H
CO2	H	-	L	-	-	M	-	-	M	H	-
CO3	M	-	-	-	H	-	L	-	H	-	M
CO4	-	L	M	-	-	H	H	-	-	L	M
CO5	L	H	-	M	-	-	-	H	L	-	H

Text Book:

1. Adobe After Effects Classroom in a Book 2024 by Adobe Press

Reference Books:

1. The VES Handbook of Visual Effects – Jeffrey A. Okun & Susan Zwerman 2020 by Routledge
2. After Effects Apprentice by Trish and Chris Meyer 2016 by Routledge

Web Reference:

1. <https://helpx.adobe.com/after-effects>
2. <https://www.videocopilot.net>
3. YouTube Channels: Surfaced Studio, Ignace Aleya, Film Riot

App Reference:

1. Adobe Capture (Mobile) – For textures, color palettes, etc.
2. Frame.io – For collaboration and review

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Syllabus Coverage from text /reference book & web/app reference:

Unit	Chapter Numbers
1	Book – Ch. 1–3 (Intro, Keyframes, Masks)
2	Book – Ch. 4–6 (Keying, Tracking, Roto)
3	Book – Ch. 7–9 (Particles, 3D Layers, Grading)
4	Online Tutorials + Showreel Projects