

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WB

Syllabus for B.Sc. in VFX Film Making (BVFM) Programme
(Effective for Students Admitted in Academic Session 2019-2020)

SEMESTER V

Paper: MEDIA ETHICS AND EDUCATION

Code: BVFM -501

Contacts Hours / Week: 3L+1T

Credits: 2

Marks: 100

Module	List Of Topics and Exercises
1	<p>To understand the positive as well as negative influence of media and the critical, evaluation of media.</p> <ul style="list-style-type: none">• Ethics – Branches of Ethics, Media Ethics – Mass Media and the shape of the Human Moral Environment. Applied Ethics – Ethical issues in different media professions – Journalism, Cinema, Advertising, Photography, Graphic Design, Animation etc.- Overview of Codes and Regulations in India. Digital Media Ethics.• Media Education – Objectives and Skills – Key Concepts, Media Scenario: Present Trends – <p>Different Starting points for Media Education – Media Impact in Society – Social and Psychological impacts.</p>

Suggested Readings: 1. Mass Media and the Moral Imagination: Philip J Rossi
2. Media Education in India: Jacob Srambickal
3. Media Ethics : Bart Pattyn

Paper: DIGITAL COMPOSITING

Code: BVFM -502

Contacts Hours / Week: 3L+1T

Credits: 2

Marks: 100

Module	List Of Topics and Exercises
1	<p>Objective: The aim of this unit of study is to complement the knowledge of digital video and audio production from the prerequisite unit with knowledge of preproduction and postproduction of video and audio</p> <ul style="list-style-type: none">• Concepts for Broadcast animation for logos channel IDs and montages, Multi-layer compositing, Special effects, Super imposition and titling, importing media in different supported file formats.• Introduction to batch render & work group, Adding cameras & lights to a simple scene to make a complex compositing, Adding 2D back ground and elements into a 3D character layers, Creating object, material IDs for further adding special effects. Effects for digital video 2D layers and 3D layers for more effective outputs. Adding particle effects into a scene.• Introduction to color character and keying, "Editing the real time video with CG based scene and merging both of them to create a final output, Exporting various file format output as per the end user requirements.

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Paper: ADVANCED NUKE
Code: BVFM -591
Contacts Hours / Week: 2L+6T
Credits: 4
Marks: 100

Module	List Of Topics and Exercises
1	Nuke 3D Work Space in Nuke <ul style="list-style-type: none">• Overview of 3D Tools• Navigating 3d Viewer
2	Creating 3D Geometry <ul style="list-style-type: none">• Intro about the 3D Nodes• Transform Geo Node, Merge Geo Node• Displace Geo Node, Edit Geo Node• Roto scoping, Paint, wire and rig removals• Film production Pipeline Advanced compositing• Set extension, Object removal, sky replacement,• Effects Compositing live action with CG,• Action Elements Understanding 3d in Nuke,• Transformations, 3D Projections, 3D Particles
3	Introduction to Stereoscopic, 360 Degree video and VR <ul style="list-style-type: none">• Understanding left eye and right eye,• stereo paint, stereo roto,• stereo compositing• Understanding 360 Videos• Understanding VR Live Shoot Co Ordination <ul style="list-style-type: none">• Understanding Chrome Ball• Shooting Log Maintenance HDR and Panorama Photography

Suggested Software: Foundry NUKE

Suggested Readings: Digital Compositing for Film and Video: Production Workflows and Techniques by [Steve Wright](#)

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Paper: 3D COMPOSITING & MATCH MOVING

Code: BVFM -592

Contacts Hours / Week: 2T+8P

Credits: 5

Marks: 100

Module	List Of Topics and Exercises
	<p>Introduction to 3d Compositing</p> <ul style="list-style-type: none">• Introduction V-Ray, Render passes export into *.EXR file format• 3d Render passes, lighting for 3d compositing, Multi pass compositing <p>Color Correction for 3D Compositing</p> <ul style="list-style-type: none">• Color Grades and Vignettes,• Compositing in Node based software <p>Introduction to Match mover</p> <ul style="list-style-type: none">• Match mover fundamentals, understanding the production pipeline, Live action 3D Tracking <p>Tracking</p> <ul style="list-style-type: none">• Concepts of 2D Tracking for 3D, Perspective matching, Solving camera, Nodal plane shot, focal length shot

Suggested Software: Maya match mover & NUKE

Suggested Readings: Match moving: The Invisible Art of Camera Tracking by Tim Dobbert)

Paper: ADVANCED VFX & DYNAMICS

Code: BVFM -593

Contacts Hours / Week: 2T+8P

Credits: 2

Marks: 100

Module	List Of Topics and Exercises
1	<p>This section focuses on understanding Advanced Visual Effects and adding VFX into an animation and live Action Films</p> <p>Focuses on students developing 3D render data and compose them using node based compositing system.</p> <p>Understanding rigid bodies, active rigid body, passive rigid body, rigid body solver, applying forces on rigid bodies, breaking rigid bodies, creating effects using soft bodies</p> <p>Working on A film from shoot to post production, Shoot Coordination for VFX related Feature Films</p> <ul style="list-style-type: none">• REALFLOW• HOUDINI• 3DS MAX (FUME-FX, RAY FIRE)• FLUIDS

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	<ul style="list-style-type: none">• BI-FROST• MASSIVE (CROWD SIMULATION)
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Suggested Software: Maya & Real flow & Houdini

Suggested Readings Book: The Magic of Houdini William Michael Cunningham, Peter Bowmar, Jason Iversen

Sessional

Paper: MEDIA ORGANIZATION

Code: BVFM -581

Contacts Hours / Week: 4P

Credits: 2

Marks: 100

Module	List Of Topics and Exercises
1	<ul style="list-style-type: none">• To make the students aware of the nature and structure of different types of media organizations, media organization's behaviour, relationship between suppliers and buyers and <p>The economics of the media organization.</p> <ul style="list-style-type: none">• Media Organization and Design: Some Conceptual Issues. Media as Business and Social• Institution. Media entrepreneurship, Greiner's Development Model of a company.• Behaviour in media Organization and Organizational Behaviour. Nature and Structure of different• Media Organizations-AIR/DD, Private Satellite Channels, Production Houses, employment• opportunities in Indian Media industry, Group Behaviour, Innovation and Creativity, Culture of <p>Organization.</p>

Suggested Readings: 1. Block et al. Managing in the Media. Focal Press, 2001
2. Media organisation and production, Simon Cottle