(Formerly West Bengal University of Technology)
Syllabus of B.Sc. In VFX Film Making
(Effective from 2023-24 Academic Sessions)

Graduate Attributes

By the end of the program the students will be able to:

The BSc. in VFX Film Making is a comprehensive program that aims to equip students with a strong theoretical foundation and extensive practical skills in the field of film making and visual effects (VFX). By the end of this course, students will have acquired a diverse set of competencies that will enable them to excel in various roles within the film and VFX industry. The course outcome includes both academic knowledge and hands-on experience, preparing students for a successful career in the dynamic and creative world of visual storytelling.

1. Film Theory and Analysis:

- Understand the principles of storytelling, cinematography, and visual composition.
- Analyze and critique films from different genres and time periods.
- Gain insights into film history, major movements, and influential filmmakers.

2. VFX Fundamentals:

- Comprehend the core concepts and principles of visual effects in films.
- Explore various VFX techniques and their applications in different contexts.
- Develop an understanding of computer-generated imagery (CGI) and its integration with live-action footage.

3. Pre-production Skills:

- Learn the art of scriptwriting, storyboarding, and pre-visualization techniques.
- Plan and organize film shoots, including location scouting and casting.
- Understand the importance of budgeting and scheduling in film production.

4. Production Techniques:

- Gain hands-on experience in camera operation, lighting, and sound recording.
- Execute different types of shots and understand the significance of shot composition.
- Collaborate effectively as a member of a film production crew.

5. VFX Production and Post-production:

- Acquire skills in VFX software and tools commonly used in the industry.
- Apply VFX techniques such as green screen compositing, motion tracking, and particle simulations.
- Edit and enhance visual effects in post-production to create seamless and realistic scenes.

6. Specialized VFX Areas:

- Explore advanced VFX areas, such as rotoscoping, prep or paint, match moving, tracking, compositing and digital matte painting.
- Develop expertise in specific VFX software and technologies used for specialized effects.

7. Motion Graphics and Animation:

- Create visually engaging motion graphics and animated sequences.
- Understand the principles of animation and apply them to VFX projects.

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8. Sound Design and Editing:

- Learn the art of sound design and its role in enhancing the overall cinematic experience.
- Edit and mix sound elements to synchronize with visual content effectively.

9. Project Management:

- Plan and execute VFX projects from inception to completion.
- Develop project management skills, including time and resource management.

10. Industry Exposure:

- Engage with industry professionals through workshops, seminars, and guest lectures.
- Participate in internships and real-world projects to gain practical industry experience.

11. Professional Ethics and Communication:

- Cultivate strong ethical values and professionalism in film production and VFX practices.
- Enhance communication and teamwork skills to collaborate effectively with peers and industry stakeholders.

12. Portfolio Development:

- Compile an impressive portfolio showcasing a diverse range of film projects and VFX works.
- Prepare for job interviews and industry opportunities with a compelling showcase of skills.

By the end of the BSc. in VFX Film Making course, graduates will have the necessary skills and knowledge to work in various roles such as VFX artists, roto artist, paint artist, match moving artist, compositor, graphic designer, film editors, sound designers, visual effects supervisors, and more. They will be ready to contribute their creativity and expertise to the world of filmmaking and make a meaningful impact in the entertainment industry.

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Curriculum Structure

FIRST SEMESTER

| SI. | Subject | Code | Subject Name | | Credits | | Total Credits |
|--------------|---------|----------------------|--|---|---------|---|------------------|
| | Туре | | , | L | Т | Р | |
| 1. | DSC | BVFM 101 BVFM 191 | Introduction to Drawing | 3 | 0 | 2 | 5 |
| 2. | | BVFM 102 BVFM 192 | Introduction to Visual Communication | 3 | 0 | 2 | 5 |
| 3. | DSE | MIC101 | Computer Fundamental | 2 | 1 | 0 | |
| 3. | GE | | Any one from GE Basket A/D | 3 | 0 | 0 | 3 |
| 4. | AECC | AECC101 | English & Professional Communication | 2 | 0 | 0 | 2 |
| 5. | SEC | SEC181 | Life Skills & Personality Development | 2 | 0 | 0 | 2 |
| 6. | VAC | VAC181A/B/C /D/E | Yoga Health & Wellness Sports Physical Fitness & Wellness Community Services | 2 | 0 | 0 | 2 |
| Total Credit | | | | | | | |

SECOND SEMESTER

| SECOND SEIVESTER | | | | | | | | | |
|------------------|---------|----------------------|--|---------|---|---|---------|--|--|
| SI. | Subject | Code | Subject Name | Credits | | | Total | | |
| | Туре | | | L | Т | Р | Credits | | |
| 1. | DSC | BVFM 201 | Script to Screen, Understanding Film | 3 | 0 | 2 | 5 | | |
| | | BVFM 291 | Technology & Film Language | | | | | | |
| 2. | | BVFM 202 BVFM 292 | Audio & Video Editing | 3 | 0 | 2 | 5 | | |
| 3. | DSE | MIC201 | Management Information System | 3 | 0 | 0 | 3 | | |
| 4. | GE | | Any one from GE Basket B/E | 3 | 0 | 0 | 3 | | |
| 5. | AECC | AECC201 | Modern Indian Languages & Literature | 2 | 0 | 0 | 2 | | |
| 6. | SEC | SEC201 | IT Skills | 2 | 0 | 0 | 2 | | |
| 7. | VAC | VAC281A/B/C/ D | Critical Thinking NSS Mental Health Environmental Studies | 2 | 0 | 0 | 2 | | |
| Total Credit | | | | | | | 22 | | |

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THIRD SEMESTER

| | Subject | | | | Credits | | Total |
|--------------|---------|----------------------|--|---|---------|---|---------|
| SI. | Туре | Code | Subject Name | L | Т | Р | Credits |
| 1. | DSC | BVFM 301 BVFM 391 | Introduction to Motion Graphics | 3 | 0 | 2 | 5 |
| 2. | | BVFM 302 BVFM 392 | Introduction to Visual Effects | 3 | 0 | 2 | 5 |
| 3. | DSE | MIC301A/B | Word and Power Point & Spreadsheet Application with Excel / R Programming & Data Analytics | 3 | 1 | 0 | 4 |
| 4. | GE | | Any one from GE Basket | 3 | 0 | 0 | 3 |
| 5. | AECC | AECC301 | The Constitution, Human Rights & Law | 2 | 0 | 0 | 2 |
| 6. | SEC | SEC301 | Understanding Basics of Cyber Security | 2 | 0 | 0 | 2 |
| Total Credit | | | | | | | 21 |

FOURTH SEMESTER

| SI. | Subject | Code | Subject Name | | Credits | | Total |
|--------------|---------|----------------------|--|---|---------|---|---------|
| | Type | | | L | Т | Р | Credits |
| 1. | DSC | BVFM 401 BVFM 491 | Fundamentals of Rotoscoping | 3 | 0 | 2 | 5 |
| 2. | | BVFM 402 BVFM 492 | Introduction to Tracking | 2 | 0 | 2 | 4 |
| 3. | | BVFM 403 BVFM 493 | Fundamentals of Paint | 2 | 0 | 2 | 4 |
| 4. | DSE | MIC401A/B/C | Basics of Operating System / Database Management with SQL/ PHP Programming & Web Development | 3 | 1 | 0 | 4 |
| 5. | | MIC402A/B/C | Graphic Design with Photoshop and Illustrator/ Unix and Shell Programming/ Advanced Excel & Data Analytics | 3 | 1 | 0 | 4 |
| 6. | AECC | AECC401 | Society Culture and Human Behavior Universal Human values | 2 | 0 | 0 | 2 |
| Total Credit | | | | | | | 23 |

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FIFTH SEMESTER

| SI. | Subject | | | Cı | Credits | | Total |
|--------------|---------|----------------------|---|----|---------|---|---------|
| | Туре | Code | Subject Name | L | Т | Р | Credits |
| 1. | DSC | BVFM 501 BVFM 591 | Clean Ups & Matte Painting | 3 | 0 | 2 | 5 |
| 2. | | BVFM 502 BVFM 592 | Camera Tracking & Match Moving | 3 | 0 | 2 | 5 |
| 3. | DSE | MIC501A/B | Cloud Computing/ Introduction to Computer Network | 3 | 1 | 0 | 4 |
| 4. | | MIC502 | E-Commerce and Application | 3 | 1 | 0 | 4 |
| 5. | SEC | SEC581 | Internship | 0 | 0 | 4 | 4 |
| Total Credit | | | | | | | 22 |

SIXTH SEMESTER

| SI. | Subject | Code | Subject Name | Credits | | | Total |
|-----|--------------|----------------------|---|---------|---|---|---------|
| | Туре | | | L | Т | Р | Credits |
| 1. | DSC | BVFM 601 BVFM 691 | Live action, Compositing, Set extension, Cinematography | 3 | 0 | 2 | 5 |
| 2. | | BVFM 602 BVFM 692 | Advance Compositing & CG integration | 3 | 0 | 2 | 5 |
| 3. | | BVFM 603 BVFM 693 | Portfolio Making | 2 | 0 | 2 | 4 |
| 4. | DSE | MIC601A/B | Web Development with HTML and CSS/ Data Mining & Data Warehousing | 3 | 1 | 0 | 4 |
| 5. | | MIC602A/B | Internet and Networking/ ERP | 3 | 1 | 0 | 4 |
| | Total Credit | | | | | | |

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SEVENTH SEMESTER

| SI. | Subject | Code | Subject Name | | Credits | | Total |
|--------------|---------|----------------------|--|---|---------|---|---------|
| | Type | | | L | Т | Р | Credits |
| 1. | DSC | BVFM 701 BVFM 791 | Introduction to Film Making | 3 | 0 | 3 | 5 |
| 2. | | BVFM 702 BVFM 792 | Making of Explainer Video | 2 | 0 | 2 | 4 |
| 3. | | BVFM 703 | Research Methodology | 3 | 2 | 0 | 5 |
| 4. | DSE | MIC701A/B/C | Software Project Management/ Introduction to Cyber Security and Cyber Laws/ Machine Learning with Python | 3 | 1 | 0 | 4 |
| 5. | | MIC702A/B/C | Digital Marketing/ Data Analysis and Interpretation/ Data Analysis & Reporting using SAS | 3 | 1 | 0 | 4 |
| Total Credit | | | | | | | 22 |

EIGHTH SEMESTER

| SI. | Subject | Code | Subject Name | Credits | | | Total |
|--------------|---------|----------------------|--------------------------------|---------|---|----|---------|
| | Туре | | | L | Т | Р | Credits |
| 1. | DSC | BVFM 801 BVFM 891 | Documentary Film Making | 3 | 0 | 2 | 5 |
| 2. | | BVFM 802 BVFM 892 | Advertisement Making | 3 | 0 | 2 | 5 |
| 4. | SEC | SEC 881 | Research Project/ Dissertation | 0 | 0 | 12 | 12 |
| Total Credit | | | | | | 22 | |