

BIRLA INSTITUTE OF TECHNOLOGY – MESRA, RANCHI
NEW COURSE STRUCTURE – To be effective from Academic Session 2023-24
Based on NEP 2020
BACHELOR OF SCIENCE HONOURS IN ANIMATION & MULTIMEDIA
SEMESTER WISE CREDIT DISTRIBUTION (SUMMARY)

| S. No | Semester | Course Category | Credits | Total |
|-------|----------|---|----------|-------|
| 1 | FIRST | Major (MJ) | 6.5 | 22 |
| | | Minor (MS) | 4 | |
| | | Multidisciplinary (MD) | 3 | |
| | | Ability Enhancement Courses (AEC) | 1.5 | |
| | | Skill Enhancement Courses (SEC) | 3 | |
| | | Common Value-Added Courses for All UG (CVAC) | 4 | |
| 2 | SECOND | Major | 8 | 22 |
| | | Minor | 4 | |
| | | Multidisciplinary | 3 | |
| | | Ability Enhancement Courses (Language) | 2 | |
| | | Skill Enhancement Courses (SEC) | 3 | |
| | | Common Value-Added Courses for All UG | 2 | |
| | | Summer Internship (only for those students who are going to choose exit option after one year) | 4 | |
| 3 | THIRD | Major | 9 | 22 |
| | | Minor | 4 | |
| | | Multidisciplinary | 3 | |
| | | Ability Enhancement Courses (Language) | 3 | |
| | | Skill Enhancement Courses (SEC) | 3 | |
| 4 | FOURTH | Major | 15.5 | 22 |
| | | Minor | 5 | |
| | | Ability Enhancement Courses (Language) | 1.5 | |

| | | | | |
|--------------|---------|--|----------|------------|
| | | Summer Internship (only for those students who are going to choose exit option) | 4 | |
| 5 | FIFTH | Major | 15 | 21 |
| | | Minor | 6 | |
| 6 | SIXTH | Major | 17 | 21 |
| | | Minor | 4 | |
| 7 | SEVENTH | Major | 16 | 20 |
| | | Minor | 4 | |
| 8 | EIGHTH | Major | 8 | 20 |
| | | Minor | 0 | |
| | | Research Project/ Dissertation | 12 | |
| Total | | | | 170 |

BIRLA INSTITUTE OF TECHNOLOGY – MESRA, RANCHI
NEW COURSE STRUCTURE – To be effective from Academic Session 2023-24
Based on NEP 2020 & CBCS Model
BACHELOR OF SCIENCE HONOURS IN ANIMATION & MULTIMEDIA

Structure of the B.Sc. Animation & Multimedia Honours Programme

| S.No. | Broad Category of Course | Credit Distribution for 3-Year B.Sc. A&M Programme | Credit Distribution for 4-Year B.Sc. A&M Honours Programme |
|--------------|---------------------------------|---|---|
| 01 | Major (Core) | 71 | 95 |
| 02 | Minor Stream | 27 | 31 |
| 03 | Multidisciplinary | 09 | 09 |
| 04 | Ability Enhancement Courses | 08 | 08 |
| 05 | Skill Enhancement Courses | 09 | 09 |
| 06 | Value Added Courses Common | 06 | 06 |
| 07 | Research Project | - | 12 |
| | Total | 130 | 170 |

| | |
|--|------------|
| The Total Minimum Credits for Completing Three Year Bachelor of Science in Animation & Multimedia Programme | 130 |
| The Total Minimum Credits for Completing Four Year Bachelor of Science in Animation & Multimedia Honours Programme is | 170 |

| BACHELOR OF SCIENCE IN ANIMATION & MULTIMEDIA HONOURS | | | | | | | | | |
|---|--------------|---------------------|--|--|---|----------------------|----------------------|-------------------------------------|--|
| SEMESTER WISE CREDIT DISTRIBUTION (Based on NEP-20 & CBCS Model) | | | | | | | | | |
| Semester / Session of Study (Recommended) | Course Level | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P-Practical</i> | | | Total Credits <i>C - Credits</i> | |
| | | | | | L (Periods /week) | T (Periods /week) | P (Periods /week) | | |
| THEORY | | | | | | | | | |
| FIRST Monsoon | FIRST | MS-1 | AN101 | History of Art & Animation-I | 2 | 0 | 0 | 2 | |
| | | MS-2 | AN102 | Introduction to Multimedia | 2 | 0 | 0 | 2 | |
| | | MD | | Multidisciplinary Course | 3 | 0 | 0 | 3 | |
| | | VAC-1 | | Human Values and Professional Ethics / Digital Empowerment / Emotional Intelligent | 2 | 0 | 0 | 2 | |
| | | MJ-1 | AN103 | Introduction To Visual Study | 1 | 0 | 2 | 2 | |
| | | LABORATORIES | | | | | | | |
| | | VAC-2 | | Yoga/ Sports for Life/ Physical Education | 1 | 0 | 2 | 2 | |
| | | AEC | MT132 | Communication Skills-I | 0 | 0 | 3 | 1.5 | |
| | | MJ-2 | AN104 | Experimental Animation | 0 | 0 | 3 | 1.5 | |
| | | MJ-3 | AN105 | Introduction to 3D | 0 | 0 | 3 | 1.5 | |
| | | MJ-4 | AN106 | Outdoor Study-I | 0 | 0 | 3 | 1.5 | |
| | | SEC | ELECTIVES (To be opted from List of SKILL ENHANCEMENT COURSES) | | | | | | |
| | | | SEC-I | Paper -I (Skill Enhancement Course) | 1 | 1 | 2 | 3 | |
| TOTAL | | | | | | | | 22 | |

| Semester / Session of Study (Recommended) | Course Level | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P- Practical</i> | | | Total Credits <i>C - Credits</i> | |
|---|-----------------|---------------------|--|--|--|---|---|-------------------------------------|-----------|
| | | THEORY | | | | | | | |
| SECOND Spring | FIRST | MS-1 | AN112 | History of Art & Animation-II | 2 | 0 | 0 | 2 | |
| | | MS-2 | AN113 | Introduction To Game Design & Development | 2 | 0 | 0 | 2 | |
| | | MD | | Multidisciplinary Course | 3 | 0 | 0 | 3 | |
| | | AEC | CE101 | Environment Science | 2 | 0 | 0 | 2 | |
| | | MJ-1 | AN114 | Principles of Animation | 1 | 0 | 2 | 2 | |
| | | LABORATORIES | | | | | | | |
| | | VAC | | Yoga/ Sports for Life/ Physical Education | 0 | 0 | 4 | 2 | |
| | | MJ-2 | AN115 | Graphic Design Tools & Techniques -I | 0 | 0 | 3 | 1.5 | |
| | | MJ-3 | AN116 | 3D Modeling Techniques-I | 0 | 0 | 4 | 2 | |
| | | MJ-4 | AN117 | Visual Studies-II | 0 | 0 | 3 | 1.5 | |
| | | MJ-5 | AN118 | Outdoor Study-II | 0 | 0 | 2 | 1 | |
| | | SEC | ELECTIVES (To be opted from List of SKILL ENHANCEMENT COURSES) | | | | | | |
| | | | SEC | Paper -II (Skill Enhancement Course) | 1 | 1 | 2 | 3 | |
| | | TOTAL | | | | | | | 22 |

Note: Students exiting the programme after securing minimum 44 credits will be awarded UG Certificate in the relevant Discipline/ Subject provided they secure 4 credits in work based vocational courses offered during summer term or internship/ Apprenticeship in addition to 6 credits from skill-based courses earned during first and second semester.

| Semester / Session of Study (Recommended) | Course Level | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P- Practical</i> | | | Total Credits <i>C - Credits</i> |
|---|---------------|--|----------------|--|--|-------------------------|-------------------------|-------------------------------------|
| | | | | | L (Periods /week) | T (Periods /week) | P (Period s/week) | |
| - THIRD Monsoon | SECOND | THEORY | | | | | | |
| | | MS-1 | AN201 | Writing & Storytelling | 2 | 0 | 0 | 2 |
| | | MS-2 | AN202 | Audio Visual Technology | 2 | 0 | 0 | 2 |
| | | MD | | Multidisciplinary Course | 3 | 0 | 0 | 3 |
| | | AEC | | Personality Development / Public Speaking | 2 | 0 | 2 | 3 |
| | | MJ-1 | AN203 | Animation Techniques | 1 | 0 | 2 | 2 |
| | | LABORATORIES | | | | | | |
| | | MJ-2 | AN204 | Graphic Design Tools & Techniques-II | 0 | 0 | 3 | 1.5 |
| | | MJ-3 | AN205 | Visual Studies-III | 0 | 0 | 3 | 1.5 |
| | | MJ-4 | AN206 | 3D Modeling Techniques-II | 0 | 0 | 4 | 2 |
| | | MJ-5 | AN207 | Outdoor Study-III | 0 | 0 | 4 | 2 |
| | | ELECTIVES (To be opted from List of SKILL ENHANCEMENT COURSES) | | | | | | |
| | | | SEC | Paper -III (Skill Enhancement Course) | 1 | 1 | 2 | 3 |
| | | TOTAL | | | | | | |

| SEMESTER /Session of Study (Recommended) | LEVEL | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P- Practicals</i> | | | Total Credits C- Credits | |
|--|---------------|----------------------|----------------|---------------------------------------|---|-------------------------|-------------------------|--------------------------------|--|
| | | | | | L (Periods /week) | T (Periods /week) | P (Periods/ week) | | |
| | | THEORY | | | | | | | |
| FOURTH Spring | SECOND | MI-1 | AN215 | Advertising & New Media | 3 | 0 | 0 | 3 | |
| | | MI-2 | AN216 | Web Technology | 2 | 0 | 0 | 2 | |
| | | LABORATORIES | | | | | | | |
| | | AEC | MT133 | Communication Skills-2 | 0 | 0 | 3 | 1.5 | |
| | | MJ-1 | AN217 | Graphic Design Tools & Techniques-III | 0 | 0 | 3 | 1.5 | |
| | | MJ-2 | AN218 | Digital Film Production | 0 | 0 | 3 | 1.5 | |
| | | MJ-3 | AN219 | Character Animation-I | 1 | 0 | 2 | 2 | |
| | | MJ-4 | AN220 | Compositing & VFX | 0 | 0 | 3 | 1.5 | |
| | | MJ-5 | AN221 | Character Modeling & Texturing | 0 | 0 | 4 | 2 | |
| | | MJ-6 | AN222 | Game Design | 0 | 0 | 3 | 1.5 | |
| | | MJ-7 | AN223 | Visual Development | 0 | 0 | 3 | 1.5 | |
| | | MJ-8 | AN224 | Urban Sketching | 0 | 0 | 4 | 2 | |
| | PE-I | Programme Elective-I | 1 | 0 | 2 | 2 | | | |
| TOTAL | | | | | | | 22 | | |

Note: Students exiting the programme after securing minimum 88 credits will be awarded UG Diploma in the relevant Discipline/ Subject Provided they secure 4 credits in skill based vocational courses offered during first year or second year summer term.

| SEMESTER /Session of Study (Recommended) | LEVEL | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P- Practicals</i> | | | Total Credits C- Credits | |
|--|--------------|--|----------------|--|---|-------------------------|-------------------------|-----------------------------------|-----------|
| | | | | | L (Periods /week) | T (Periods /week) | P (Periods/ week) | | |
| | | THEORY | | | | | | | |
| FIFTH Monsoon | THIRD | MI-1 | AN301 | Direction For Animation | 2 | 1 | 0 | 3 | |
| | | MI-2 | AN302 | Character Design | 2 | 0 | 2 | 3 | |
| | | LABORATORIES | | | | | | | |
| | | MJ-1 | AN303 | Graphic Design Tools & Techniques-IV (UI/ UX) | 0 | 0 | 3 | 1.5 | |
| | | MJ-2 | AN304 | Comic Production | 0 | 0 | 3 | 1.5 | |
| | | MJ-3 | AN305 | Character Animation-II | 0 | 0 | 3 | 1.5 | |
| | | MJ-4 | AN306 | 3D Character Modeling, Texturing, Lighting & Rendering | 0 | 0 | 4 | 2 | |
| | | MJ-5 | AN307 | Game Engine | 0 | 0 | 3 | 1.5 | |
| | | MJ-6 | AN308 | Layout & Digital Painting | 0 | 0 | 3 | 1.5 | |
| | | MJ-7 | AN309 | Documentary Film Making | 0 | 0 | 3 | 1.5 | |
| | | MJ-8 | AN310 | Field Study | 0 | 0 | 4 | 2 | |
| | | ELECTIVES (To be opted from List of Program Electives (PE)) | | | | | | | |
| | | MJ-9 | PE-II | Programme Elective-II | 1 | 0 | 2 | 2 | |
| | | TOTAL | | | | | | | 21 |

| SEMESTER /Session of Study (Recommended) | LEVEL | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P- Practicals</i> | | | Total Credits C- Credits |
|---|-------|--|----------------|---|---|-------------------------|-------------------------|-----------------------------------|
| | | | | | L (Periods/ week) | T (Periods/ week) | P (Periods/w eek) | |
| SIXTH Spring | THIRD | THEORY | | | | | | |
| | | MI-1 | AN316 | Entrepreneurship | 2 | 0 | 0 | 2 |
| | | MI-2 | AN317 | Digital Marketing | 2 | 0 | 0 | 2 |
| | | LABORATORIES | | | | | | |
| | | MJ-1 | AN318 | 3D Rigging & Skinning | 0 | 0 | 4 | 2 |
| | | MJ-2 | AN319 | Character Animation-III | 0 | 0 | 4 | 2 |
| | | MJ-3 | AN320 | Production Design Workshop-I (Specialization: Animation, Film Making, Visual Effects, Games, and Comics) | 0 | 0 | 8 | 4 |
| | | MJ-4 | AN321 | Degree Showcase Project-I | | | | 7 |
| | | ELECTIVES (To be opted from List of Program Electives (PE)) | | | | | | |
| | | MJ-5 | PE-III | Programme Elective-III | 1 | 0 | 2 | 2 |
| TOTAL | | | | | | | 21 | |
| TOTAL PROGRAM CREDITS FOR THREE YEAR B.Sc. PROGRAMME | | | | | | | 130 | |

Note: Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline/ Subject upon securing 130 credits.

| SEMESTER /Session of Study (Recommended) | LEVEL | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P- Practicals</i> | | | Total Credits C- Credits |
|--|--------|---------------------|----------------|--|---|-------------------------|-------------------------|-----------------------------------|
| | | | | | L (Periods/ week) | T (Periods/ week) | P (Periods/w eek) | |
| SEVENTH Monsoon | FOURTH | THEORY | | | | | | |
| | | MI-1 | AN401 | Research in Animation & Multimedia | 2 | 0 | 0 | 2 |
| | | MI-2 | AN402 | Indian Art & Animation | 2 | 0 | 0 | 2 |
| | | LABORATORIES | | | | | | |
| | | MJ-1 | AN403 | Advanced Animation Tools & Techniques | 0 | 0 | 3 | 1.5 |
| | | MJ-2 | AN404 | 3D Dynamics & Simulation | 0 | 0 | 3 | 1.5 |
| | | MJ-3 | AN405 | Field Visit & Presentation | 0 | 0 | 3 | 1.5 |
| | | MJ-4 | AN406 | Storytelling Using Multimedia | 0 | 0 | 3 | 1.5 |
| | | MJ-5 | AN407 | Production Design Workshop-II (Specialization: Animation, Film Making, Visual Effects, Games, and Comics) | 0 | 0 | 8 | 4 |
| | | MJ-6 | AN408 | Degree Showcase Project-II | | | | 6 |
| TOTAL | | | | | | | 20 | |

| SEMESTER /Session of Study | LEVEL | Category | Course Code | Courses | Mode of delivery & credits <i>L-Lecture; T-Tutorial; P- Practicals</i> | | | Total Credits C- Credits |
|---|--------|--|----------------|--|---|-------------------------|-------------------------|-----------------------------------|
| | | | | | L (Periods /week) | T (Periods /week) | P (Periods/ week) | |
| EIGHTH SEMESTER | FOURTH | LABORATORIES | | | | | | |
| | | RP-1 | AN409 | Industrial Training / Research Project / Dissertation | | | | 12 |
| | | MJ-1 | AN410 | Final Exhibition / Showcase/ Publication | | | | 8 |
| | | TOTAL | | | | | | 20 |
| | | TOTAL PROGRAM CREDITS FOR FOUR YEAR B.Sc. HONOURS PROGRAMME | | | | | | 170 |
| Note: Students will be awarded UG Degree- B.Sc. Animation & Multimedia with Honours. | | | | | | | | |

| ELECTIVES (LIST OF SKILL ENHANCEMENT COURSES) | | | | | | | |
|---|-------------------------|---------|-----------------------------|----------------------------|----------------------|----------------------|---------------|
| PE / LEVEL | Programme Elective (PE) | Code No | Name of the PE Course | Mode of delivery & credits | | | Total Credits |
| | | | | L (Periods /week) | T (Periods /week) | P (Periods /week) | |
| 1 | (SEC-I) | AN107 | Basic Drawing Skills | 1 | 1 | 2 | 3 |
| | | AN108 | Presentation Design | 1 | 1 | 2 | 3 |
| | | AN109 | Photography | 1 | 1 | 2 | 3 |
| | | AN110 | Advertising Campaign Design | 1 | 1 | 2 | 3 |
| | | AN111 | Desk Top Publishing | 1 | 1 | 2 | 3 |
| 1 | (SEC-II) | AN119 | Basic Writing Skills | 1 | 1 | 2 | 3 |
| | | AN120 | Web Design | 1 | 1 | 2 | 3 |
| | | AN121 | Comic Illustration | 1 | 1 | 2 | 3 |
| | | AN122 | Product Modeling in 3D | 1 | 1 | 2 | 3 |
| | | AN123 | Video Making | 1 | 1 | 2 | 3 |
| | | AN124 | Digital Animation | 1 | 1 | 2 | 3 |
| | | AN125 | Game Appreciation | 1 | 1 | 2 | 3 |
| 2 | (SEC-III) | AN208 | Calligraphy | 1 | 1 | 2 | 3 |
| | | AN209 | Fiction Writing | 1 | 1 | 2 | 3 |
| | | AN210 | Architectural Modeling | 1 | 1 | 2 | 3 |
| | | AN211 | Basic Video Editing | 1 | 1 | 2 | 3 |
| | | AN212 | Sound Design | 1 | 1 | 2 | 3 |
| | | AN213 | 3D Animation | 1 | 1 | 2 | 3 |
| | | AN214 | Matte Painting | 1 | 1 | 2 | 3 |

LIST OF PROGRAM ELECTIVES (PE)

| LIST OF PROGRAM ELECTIVES (PE) | | | | | | | |
|---------------------------------------|--------------------------------|----------------|-------------------------------------|---|--------------------------|--------------------------|----------------------|
| | | | | Mode of delivery & credits | | | Total Credits |
| | | | | <i>L-Lecture; T-Tutorial; P-Practical</i> | | | |
| PE / LEVEL | Programme Elective (PE) | Code No | Courses | L (Periods /week) | T (Periods/ week) | P (Periods /week) | C |
| | PE-I (Semester-IV) | AN225 | Story Boarding | 1 | 0 | 2 | 2 |
| | | AN226 | Stop Motion | 1 | 0 | 2 | 2 |
| | | AN227 | Story Appreciation for Gaming | 1 | 0 | 2 | 2 |
| | | AN228 | Fundamentals of Theatre and Acting | 1 | 0 | 2 | 2 |
| | PE-II (Semester-V) | AN311 | Classical Animation | 1 | 0 | 2 | 2 |
| | | AN312 | 3D Sculpting | 1 | 0 | 2 | 2 |
| | | AN313 | 3D Motion Graphics and Dynamics | 1 | 0 | 2 | 2 |
| | | AN314 | Magazine Design | 1 | 0 | 2 | 2 |
| | | AN315 | Design Thinking | 1 | 0 | 2 | 2 |
| | PE-III (Semester-VI) | AN322 | VFX in 2D Animation | 1 | 0 | 2 | 2 |
| | | AN323 | 3D Compositing for Camera | 1 | 0 | 2 | 2 |
| | | AN324 | Graphic Novels | 1 | 0 | 2 | 2 |
| | | AN325 | Media Studies | 1 | 0 | 2 | 2 |
| | | AN326 | Film Production Design | 1 | 0 | 2 | 2 |
| | | AN327 | Product Designing and Visualization | 1 | 0 | 2 | 2 |

LIST OF MULTIDISCIPLINARY COURSES

| LIST OF MULTIDISCIPLINARY COURSES | | | | | | | |
|-----------------------------------|------|---------|---|---|-------------------------|-------------------------|---------------|
| LEVEL | SEM. | Code No | Name of the Course | Mode of delivery & credits | | | Total Credits |
| | | | | <i>L-Lecture; T-Tutorial; P-Practical</i> | | | |
| | | | | L (Periods/ week) | T (Periods/ week) | P (Periods/ week) | C |
| | | MT115 | Business Economics | 3 | 0 | 0 | 3 |
| | | MT119 | Introduction to Human Resource Management | 3 | 0 | 0 | 3 |
| | | MT120 | Introduction to Marketing Management | 3 | 0 | 0 | 3 |
| | | MT123 | Business Communication | 2 | 0 | 2 | 3 |
| | | MT417 | French Language | 3 | 0 | 0 | 3 |

VOCATIONAL COURSES OFFERED FOR ANIMATION & MULTIMEDIA STUDENTS

| LIST OF VOCATIONAL COURSES | | | | | | | |
|----------------------------|--------|---------|---------------------------------|---|-------------------------|---------------------|---------------|
| LEVEL | SEM. | Code No | Name of the Course | Mode of delivery & credits | | | Total Credits |
| | | | | <i>L-Lecture; T-Tutorial; P-Practical</i> | | | |
| | | | | L (Periods/week) | T (Periods/ week) | P (Periods/week) | C |
| First | SEM II | AN126 | Internship on Digital Marketing | | | | 4 |
| Second | SEM IV | AN229 | Internship on Multimedia | | | | 4 |