**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** |

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| **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*****L-Lecture; T-Tutorial; P-Practical*** | **Total Credits*****C - Credits*** |
| **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*****L-Lecture; T-Tutorial; P-Practical*** | **Total Credits*****C - Credits*** |
|  |  | **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.**  |

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| **Semester / Session of Study****(Recommended)** | **Course Level** | **Category**  | **Course** **Code** | **Courses** | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practical*** | **Total Credits*****C - Credits*** |
|  |  |  |  |  | **L****(Periods/week)** | **T****(Periods/week)** | **P****(Periods/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** | **22** |

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| --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER /Session of Study****(Recommended)** | **LEVEL** | **Category** | **Course** **Code**  | **Courses**  | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practicals*** | **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.** |

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| **SEMESTER /Session of Study****(Recommended)** | **LEVEL** | **Category**  | **Course** **Code**  | **Courses**  | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practicals*** | **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** |

|  |  |  |  |  |  |  |
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| **SEMESTER /Session of Study****(Recommended)** | **LEVEL** | **Category**  | **Course** **Code**  | **Courses**  | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practicals*** | **Total Credits****C-****Credits** |
| L(Periods/week) | T(Periods/week) | P(Periods/week) |
| **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*****L-Lecture; T-Tutorial; P-Practicals*** | **Total Credits****C-****Credits** |
| L(Periods/week) | T(Periods/week) | P(Periods/week) |
| **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** |

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| **SEMESTER /Session of Study****EIGHTH SEMESTER** | **LEVEL****FOURTH** | **Category** | **Course****Code** | **Courses** | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practicals*** | **Total Credits****C-****Credits** |
| **L****(Periods/week)** | **T****(Periods/week)** | **P****(Periods/week)** |
| **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.** |

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| **ELECTIVES (LIST OF SKILL ENHANCEMENT COURSES)** |
|  |  |  |  | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practical*** | **Total Credits** |
| **PE / LEVEL** | **Programme Elective (PE)** | **Code No** | **Name of the PE Course** | **L****(Periods****/week)** | **T****(Periods****/week)** | **P****(Periods****/week)** | **C** |
| 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)**

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| **LIST OF PROGRAM ELECTIVES (PE)** |
|  | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practical*** | **Total Credits** |
| **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**

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| **LIST OF MULTIDISCIPLINARY COURSES** |
|  |  |  |  | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practical*** | **Total Credits** |
| **LEVEL** | **SEM.**  | **Code No** | **Name of the Course** | **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**

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| **LIST OF VOCATIONAL COURSES** |
|  |  |  |  | **Mode of delivery & credits*****L-Lecture; T-Tutorial; P-Practical*** | **Total Credits** |
| **LEVEL** | **SEM.**  | **Code No** | **Name of the Course** | **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 |