

| Sem. | AIML NEP2020 STRUCTURE | | | | | | | |
|-----------------------|---|--|---|--|---|--|---|----|
| Induction Training -- | | | | | | | | |
| I | UST101 Applied Mathematics –I (BS)(4) | UST102 Applied Chemistry (BS)(4) | UST106 Elements of Electrical & Electronics Engg (ES)(4) | UST112 Programming in C (ES)(4) | UUC002 English & Communication Skills (HS) AEC I(2) | UUC001 Constitution of India VSEC (2) | UCC001 -010 Co-curricular Courses (CC)(1) | 22 |
| II | UST108 Applied Mathematics – II (BS)(4) | UST102 Applied Physics (BS)(4) | UST113 Programming in C++ (ES)(4) | UST105 Managing & Developing Innovations (ES)(2) | UST114 Microprocessor & Application PC (2) | UUC102 IKS (2) | | 20 |
| III | UAM301 Transfer Calculus, Fourier Series and Numerical Techniques (BS)(4) | UAM302 Python Programming PC (4) | UAM303__ DBMS /Fundamentals of cloud computing Program Elective –I (4) | UAM304 Data Structure PC (4) | UAM304 Computer Network PC (4) | UUC003 Environmental Sciences VEC (2) | UCC001 -010 Co-curricular Courses (CC) (1) | 22 |
| IV | UAM401 Complex Analysis Probability and Statistical methods PC (4) | UAM402 Operating System PC (4) | UAM403__ Advanced Database/DPC Program Elective –II (4) | UAM404 Introduction to AI PC (4) | UAM405 Information Security Multidisciplinary Minor I (2) | UUC006/ UUC007 Foreign Language VEC (2) | UUC004/ UUC005 Modern Indian Language AEC I(2) | 22 |
| V | UAM501 Fuzzy logic PC (4) | UAM502 Design and Analysis of Algorithm PC (4) | UAM503__ Big Data Analytics/Cloud Computing Program Elective –III (4) | UAM504 Machine learning PC (4) | UAM505 Cyber security Multidisciplinary Minor II (4) | UAM506 Field Project/Mini Project (2) | UCC001 -010 Co-curricular Courses (CC) (1) | 22 |

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| VI | UAM601 Natural Language Processing PC (4) | UAM602 Deep Learning PC (4) | UAM603__ Data Visualization /AWS Program Elective –IV (4) | UAM604 Fundamental of Tensors Open Elective I(4) | UAM605 Ethical Hacking Multidisciplinary Minor III (4) | UAM606 Software Proficiency Program-I(R Programming) VSEC (2) | | 22 |
| VII | UST701 Project and Finance Management (4) | UAM702 Optimization Techniques PC (4) | UAM703__ Computer Vision/Cloud Security Program Elective –VI (4) | UAM704 Mobile Application Development Open Elective II(4) | UAM705 Block Chain Technology Multidisciplinary Minor IV (4) | UAM706 Software Proficiency Program-II (WT) VSEC (2) | UCC001 -010 Co-curricular Courses (CC) (1) | 22 |
| VIII | UST801 Research Methodology (4) Online Mode | Internship/On job Training (12) | | | Graduation Project (4) | | | 20 |
| Total | | | | | | | | 172 |

| No. | Category | Credits | Courses |
|-----|--|---------|---|
| 1. | Basic Science Courses/ Engg. Science Courses | 34 | |
| 2. | Program Core Courses | 50 | |
| 3. | Program Elective Courses | 20 | |
| 4. | Multidisciplinary Minor | 14 | 2 +4+4+4 = 14 credits courses from other than major |
| 5. | Open Elective | 08 | Internet of Things, Industry 4.0, Innovation and Entrepreneurship, Sustainable Development, Disaster Management |
| 6. | Skill Courses | 08 | Advanced laboratory/ software/ training/ employability skills |

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| 7. | Humanities Social Science and Management | 14 | English & Communication Skills, Indian Modern Language, Project and Finance Management, |
| 8. | Experiential Learning Courses | 22 | Research Methodology, Field Project, Graduation project, Internship |
| 9. | Co-curricular Courses | 04 | Health & Wellness, Yoga Education, Sports & Fitness, Cultural Activities, NSSS,NCC, Fine/ Applied/ Visual/ Performing Arts |
| Total | | 166 | |