**100 LEVEL**

**FIRST SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **GENERAL STUDIES COURSES** | GSS 101 | USE OF ENGLISH AND LIBRARY | 2 | 2 |  | 0 |
|  | GSS 111 | INTRODUCTION TO COMPUTER STUDIES | 2 | 2 |  | 0 |
| **CORE COURSES** | CSC 101 | INTRODUCTION TO COMPUTER SCIENCE | 2 | 2 |  | 0 |
|  | BIO 101 | GENERAL BIOLOGY I | 3 | 2 |  | 1 |
|  | MTH 111 | ALGEBRA & TRIGONOMETRY | 3 | 3 |  | 0 |
|  | STA 111 | BASIC STATISTICS | 3 | 3 |  | 0 |
|  | PHY 101 | GENERAL PHYSICS I | 3 | 3 |  | 0 |
|  | CSC181 | COMPUTER LABORATORY I  (APPLICATION OF BASIC PROGRAMMING LANGUAGE) | 1 | - |  | 1 |
|  | PHY 181 | GENERAL PHYSICS LABORATORY I | 1 | - |  | 1 |
|  | CHM 101 | GENERAL CHEMISTRY I | 3 | 3 |  | 0 |
|  | CHM 107 | PRACTICAL CHEMISTRY I | 1 | - |  | 1 |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **24** | **19** |  | **5** |

**100 LEVEL**

**SECOND SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **GENERAL STUDIES COURSES** | GSS 102 | USE OF ENGLISH | 2 | 2 |  | 0 |
|  | GSS 122 | HISTORY OF PHILOSOPHY OF SCIENCE | 2 | 2 |  | 0 |
|  | CSC 112 | COMPUTER PROGRAMMING,I  (Using FORTRAN) | 3 | 2 |  | 1 |
|  | CHM 102 | GENERAL CHEMISTRY II | 3 | 2 |  | 1 |
|  | CHM 108 | PRACTICAL CHEMISTRY II | 1 | - |  | 1 |
|  | MTH 112 | COORDINATE GEOMETRY & CALCULUS | 3 | 3 |  | 0 |
|  | PHY 102 | GENERAL PHYSICS II | 3 | 3 |  | 0 |
|  | CSC122 | GENERAL LATEX APPLICATION | 1 | 0 |  | 1 |
|  | CSC182 | COMPUTER LABORATORY II  (BASIC UNIX/LINUX SYSTEM) | 2 | 1 |  | 1 |
|  | PHY 182 | GENERAL PHYSICS LABORATORY II | 1 | 0 |  | 1 |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **21** | **15** |  | 6 |

**200 LEVEL**

**FIRST SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **GENERAL STUDIES COURSE** | GSS 201 | INTRODUCTION TO ENTREPRENEURIAL STUDIES | 2 | 2 |  | 0 |
| **CORE COURSES** | CSC 201 | INTRODUCTION TO PROBLEM SOLVING (USING PYTHON PROGRAMMING LANGUAGES) | 3 | 2 |  | 1 |
|  | CSC 211 | COMPUTER LOGIC DESIGN | 2 | 2 |  | 0 |
|  | CSC 221 | MICROPROCESSOR AND COMPUTER ARCHITECTURE, I | 3 | 3 |  | 0 |
|  | CSC 231 | OPERATING SYSTEMS I | 2 | 2 |  | 0 |
|  | CSC241 | SYSTEM EVALUATION AND OPTIMIZATION | 2 | 2 |  | 0 |
|  | MTH 211 | CALCULUS | 3 | 3 |  | 0 |
|  | CSC281 | SCIENTIFIC PROGRAMMING  (USING **R** OR **MAT LAB**)  (COMPUTER LABORATORY III) | 1 | 0 |  | 1 |
|  |  | ELECTIVES | 3 | 3 |  | 0 |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **19** | 17 |  | 2 |
|  |  | ELECTIVES: *Choose 3 units* |  |  |  |  |
| **ELECTIVE COURSES** | MTH 231 | LINEAR ALGEBRA | 3 | 3 |  | 0 |
|  | STA 221 | STATISTICAL INFERENCE I | 3 | 3 |  | 0 |

**200 LEVEL**

**SECOND SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **CORE COURSES** | CSC 202 | COMPUTER PROGRAMMING II  **(Using C OR C++)** | 2 | 1 |  | 1 |
|  | CSC 212 | OPERATING SYSTEMS II | 3 | 2 |  | 1 |
|  | CSC 222 | MICROPROCESSOR AND COMPUTER ARCHITECTURE II | 3 | 2 |  | 1 |
|  | CSC 232 | COMPUTER HARDWARE AND SYSTEM MAINTENANCE | 2 | 1 |  | 1 |
|  | PHY 252 | ELECTRIC CIRCUITS & ELECTRONICS | 3 | 3 |  | 0 |
|  | MTH 252 | DISCRETE MATHEMATICS I | 3 | 3 |  | 0 |
|  |  | ELECTIVES **(I & II)** | 5 | 5 |  |  |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **21** | **17** |  | **4** |
|  |  | ELECTIVES I: *Choose 3 Units* |  |  |  |  |
| **ELECTIVE COURSES** | MTH 242 | INTRODUCTORY ABSTRACT ALGEBRA I | 3 | 3 |  | 0 |
|  | STA 212 | STATISTICAL INFERENCE II | 3 | 3 |  | 0 |
|  |  | ELECTIVES II: *Choose 2 Units* |  |  |  |  |
|  | CSC 204 | MANAGEMENT INFORMATION SYSTEMS | 2 | 2 |  | 0 |
|  | CSC 242 | INTRODUCTION TO THEORY OF COMPUTING | 2 | 2 |  | 0 |

**300 LEVEL**

**FIRST SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **GENERAL STUDIES COURSE** | GSS 300 | INTRODUCTION TO ENTREPRENEURIAL SKILLS | 2 | 2 |  | 0 |
| **CORE COURSES** | CSC 311 | DATA STRUCTURES AND ALGORITHMS | 3 | 3 |  | 0 |
|  | CSC 321 | DATABASE DESIGN AND MANAGEMENT, I | 3 | 2 |  | 1 |
|  | CSC 331 | PRINCIPLES OF COMPILER CONSTRUCTION | 3 | 3 |  | 0 |
|  | CSC 341 | STRUCTURED PROGRAMMING | 3 | 2 |  | 1 |
|  | CSC 351 | SYSTEM ANALYSIS AND DESIGN | 3 | 3 |  | 0 |
|  | CSC 381 | HUMAN COMPUTER INTERFACE (HCI) | 2 | 2 |  | 0 |
|  |  | ELECTIVES | 3 | 3 |  | 0 |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **22** | **20** |  | **2** |
|  |  |  |  |  |  |  |
|  |  | ELECTIVES *Choose 3 Units* |  |  |  |  |
| **ELECTIVE COURSES** | CSC 361 | INTRODUCTION TO OPERATIONS  RESEARCH | 3 | 3 |  | 0 |
|  | CSC 371 | NUMERICAL METHODS AND  COMPUTATIONAL SCIENCE | 3 | 3 |  | 0 |

**300 LEVEL**

**SECOND SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **CORE COURSE** | CSC 390 | SIX MONTHS INDUSTRIAL TRAINING | 6 |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | ***Experiments, Practical and Technical Reports Presentation*** |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **6** |  |  |  |

**400 LEVEL**

**FIRST SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **CORE COURSES** | CSC 401 | OBJECT ORIENTED PROGRAMMING (with JAVA Programming Language) | 3 | 2 |  | 1 |
|  | CSC 411 | SOFTWARE ENGINEERING | 3 | 3 |  | 0 |
|  | CSC 421 | ALGORITHMS AND COMPLEXITY ANALYSIS | 3 | 3 |  | 0 |
|  | CSC 431 | DATABASE DESIGN AND MANAGEMENT II | 3 | 2 |  | 1 |
|  | CSC 441 | SURVEY OF PROGRAMMING LANGUAGES | 3 | 2 |  | 1 |
|  | CSC471 | COMPUTER GRAPHICS & VISUALIZATION | 3 | 3 |  | 0 |
|  |  | ELECTIVES | 3 | 3 |  | 0 |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **21** | **19** |  | **3** |
| **ELECTIVE COURSES** |  | ELECTIVES I: *Choose 3 Units* |  |  |  |  |
|  | CSC 451 | EMERGING TECHNOLOGY IN COMPUTER SCIENCE  (SPECIAL TOPICS) | 3 |  |  | 0 |
|  | CSC 481 | INFORMATION TECHNOLOGYLAW | 3 |  |  | 0 |
|  |  | ELECTIVES II: *Choose 3 Units* |  |  |  |  |
|  | CSC 461 | SOFTWARE PROJECT MANAGEMENT | 3 |  |  | 0 |
|  | CSC 471 | CYBER SECURITY AND PRIVACY | 3 |  |  | 0 |

**400 LEVEL**

**SECOND SEMESTER**

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| **GROUPING** | **COURSE CODE** | **COURSE TITLE** | **CREDIT HOUR** | **LECTURE HOUR** | **TUTORIAL HOUR** | **PRACTICAL HOUR** |
| **CORE COURSES** | CSC 400 | PROJECT | 6 | 0 |  | 6 |
|  | CSC 422 | NET-CENTRIC COMPUTING AND WEB TECHNOLOGY | 3 | 2 |  | 1 |
|  | CSC 432 | ARTIFICIAL INTELLIGENCE | 3 | 3 |  | 0 |
|  | CSC 442 | DATA COMMUNICATION AND NETWORKS | 3 | 2 |  | 1 |
|  | CSC 452 | SYSTEM MODELLING AND SIMULATION | 2 | 2 |  |  |
|  |  | ELECTIVES | 4 | 2 |  | 2 |
|  |  | **TOTAL NUMBER OF CREDIT HOURS** | **21** | **11** |  | **10** |
| **ELECTIVE**  **COURSES** |  | ELECTIVES I: *Choose 2 Units* |  |  |  |  |
|  | CSC 462 | DISTRIBUTED COMPUTING SYSTEM | 2 | 1 |  | 1 |
|  | CSC 472 | FORMAL METHODS AND SOFTWARE DEVELOPMENT | 2 | 2 |  | 0 |
|  |  | ELECTIVES II: *Choose 2 Units* |  |  |  |  |
|  | CSC 482 | MULTIMEDIA TECHNOLOGY | 2 | 1 |  | 1 |
|  | CSC 492 | DATA SCIENCE AND BLOCKCHAIN TECHNOLOGY | 2 | 1 |  | 1 |