|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester** | **Core (DSC)** | **Elective (DSE)** | **Generic Elective (GE)** | **Ability Enhancement Course (AEC)** | **Skill Enhancement Course (SEC)** | **Internship/ Apprenticeship/ Project Work/ Community Outreach** | **Value Addition Course (VAC)** | **Total Credits** |
| I | DSC01 Programming Fundamentals Using C++A1 Programming Fundamentals Using PythonB1 Discipline B1(4\*3=12) |  | Choose one from a pool of **Language** GE’s (4) | Choose one from a pool of AEC courses (2) | Choose one from a pool of courses (2) |  | Choose one from a pool of courses (2) | 22 credits |
| II | DSC02 Data StructuresA2 Data Interpretation and Visualization using PythonB2 Discipline B2(4\*3=12) |  | Choose one from a pool of **Language** GE’s (4) | Choose one from a pool of AEC courses (2) | Choose one from a pool of courses (2) |  | Choose one from a pool of courses (2) | 22 credits |
| III | DSC03 Computer System ArchitectureA3 Data Mining IB3 Discipline B3(4\*3=12) |  | Choose one from a pool of **Language** GE’s (4) | Choose one from a pool of AEC courses (2) | Choose one from a pool of courses (2) |  | Choose one from a pool of courses (2) | 22 credits |
| IV | DSC04 Operating SystemA4 Data Mining IIB4 Discipline B4(4\*3=12) |  | Choose one from a pool of **Language** GE’s (4) | Choose one from a pool of AEC courses (2) | Choose one from a pool of courses (2) |  | Choose one from a pool of courses (2) | 22 credits |
| V | DSC05 Database Management SystemA5 Machine LearningB5 Discipline B5(4\*3=12) | Choose from pool of courses DSE(4)  | Choose one from a pool of GE’s (4) | Choose one from a pool of AEC courses (2) | Choose one from a pool of courses (2) |  | Choose one from a pool of courses (2) | 22 credits |
| VI | DSC06 Computer networksA6 Deep learningB6 Discipline B6(4\*3=12) | Choose from pool of courses DSE(4) | Choose one from a pool of GE’s (4) | Choose one from a pool of AEC courses (2) | Choose one from a pool of courses (2) |  | Choose one from a pool of courses (2) | 22 credits |
| VII | DSC 07 Design and AnalysisOf Algorithms(4) | Choose three  DSE (3x4) coursesORChoose two  DSE (2x4) and one GE (4) courseORChoose one DSE (4) and two  GE (2x4) courses(total = 12 credits) |  |  |  | Dissertation on MajorORDissertation on Minor ORAcademic project/ Entrepreneurship (6) |  | 22 credits |
| VIII | DSC 08 Information Security(4) | Choose three  DSE (3x4) coursesORChoose two  DSE (2x4) and one GE (4) courseORChoose one DSE (4) and two  GE (2x4) courses(total = 12 credits) |  |  |  | Dissertation on MajorORDissertation on Minor ORAcademic project/ Entrepreneurship (6) |  | 22 credits |