|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 Python  B1 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 Structures  A2 Data Interpretation and Visualization using Python  B2 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 Architecture  A3 Data Mining I  B3 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 System  A4 Data Mining II  B4 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 System  A5 Machine Learning  B5 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 networks  A6 Deep learning  B6 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 Analysis  Of Algorithms  (4) | Choose three  DSE (3x4) courses OR Choose two  DSE (2x4) and one GE (4) course OR Choose one DSE (4) and two  GE (2x4) courses  (total = 12 credits) |  |  |  | Dissertation on Major OR Dissertation on Minor  OR  Academic project/ Entrepreneurship  (6) |  | 22 credits |
| VIII | DSC 08 Information Security  (4) | Choose three  DSE (3x4) courses OR Choose two  DSE (2x4) and one GE (4) course OR Choose one DSE (4) and two  GE (2x4) courses  (total = 12 credits) |  |  |  | Dissertation on Major OR Dissertation on Minor  OR  Academic project/ Entrepreneurship  (6) |  | 22 credits |