Summary of Course Distribution

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| --- | --- | --- |
|  | **Credits** | **Remarks** |
| General Education Courses (GED) | 24 | 5 Major + 3 Elective |
| Major Core Courses | 65 | 4 cr Capstone Project, 1 cr Internship |
| Major Elective Courses | 12 | 4 Theory |
| Other Engineering | 8 | 2 Theory+ 2 Lab from EEE |
| Optional/Minor | 9 | 3 Theory |
| Basic Science | 10 | 3 Theory + 1 Lab |
| Mathematics | 12 | 4 Theory |
| **Total** | **140** |  |

**4-Year Distribution of Courses**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Course Code** | **Course Title** | **Credits** | **Remarks/Prerequisite** |
| **Term – 1** | CSE 101 | Introduction to Programming | 1 |  |
|  | ENG 101 / GEF 101  (General Education Foundation) | Composition and Rhetoric (Reading & Writing focus) / Composition | 3 | GED Core 1 |
|  | MAT 101 | Differential and Integral Calculus | 3 |  |
|  | PHY 101 & PHY 102 | Physics I & LAB | 3+1 |  |
|  |  | **Total Credits** | **11** |  |
|  |  |  |  |  |
| **Term – 2** | CSE 103 & CSE 104 | Structured Programming & LAB | 3+1 | CSE 101 |
|  | CSE 105 | Discrete Mathematics | 3 |  |
|  | GED 100 / UCC 102 | Bangladesh Studies / Emergence of Bangladesh | 3 | GED Core 2 |
|  | MAT 102 | Co-ordinate Geometry and Linear Algebra | 3 |  |
|  |  | **Total Credits** | **13** |  |
|  |  |  |  |  |
| **Term – 3** | PHY 103 | Physics II | 3 |  |
|  | CSE 107 & CSE 108 | Data Structures & LAB | 3+1 | CSE 103 & 104 |
|  | ETE XXX & ETE XXX | Electronic Device and circuits 1 & LAB | 3+1 |  |
|  | GED 101 / UCC 101  (ULAB Core Course) | Bangla Bhasa | 3 | GED Core 3 |
|  |  | **Total Credits** | **14** |  |
|  |  |  |  |  |
| **Term – 4** | MAT 103 | Differential Equations and Numerical Analysis | 3 |  |
|  | ENG 102 / GEF 102 | Public Speaking (Speaking, Listening & Presentations focus) | 3 | GED Core 4 |
|  | CSE 201 & CSE 202 | Digital Logic Design & Lab | 3+1 |  |
|  | CSE 203 & CSE 204 | Object Oriented Programming & LAB | 3+1 | CSE 103 & CSE 104 |
|  |  | **Total Credits** | **14** |  |
|  |  |  |  |  |
| **Term – 5** | CSE 205 & CSE 206 | Algorithms & LAB | 3+1 | CSE 105, CSE 107, 108 |
|  | CSE 207 | Computer Organization and Architecture | 3 | CSE 201 |
|  | STA 201 | Statistics and Probability | 3 |  |
|  | EEE XXX | Electrical Circuit 1 & LAB | 3+1 |  |
|  | CSE 200 | Design Project-I | 1 | CSE 201, 202 |
|  |  | **Total Credits** | **15** |  |
|  |  |  |  |  |
| **Term – 6** | CSE 207 & CSE 208 | Database Management System & Lab | 3+1 |  |
|  | CSE 209 | Automata and Theory of Computation | 3 | CSE 205 |
|  | CSE 211 & CSE 212 | Operating Systems & Lab | 3+1 | CSE 207 |
|  | GED 218 | Professional Ethics (GED 5) | 3 | Mandatory for CSE |
|  |  | **Total Credits** | **14** |  |
|  |  |  |  |  |
| **Term – 7** | CSE 301 & CSE 302 | Microprocessor and Microcontroller & Lab | 3+1 | CSE 205 |
|  | GED XXX | GED Elective 3 | 3 | GED Elective 3 |
|  | CSE 303 | System Analysis and Design | 3 | CSE 203 |
|  | GED 317 | Environment and Sustainability (GED 7) | 3 | Mandatory for CSE |
|  | CSE 3XX | Web Programming | 1 | CSE 203 & CSE 204 |
|  |  | **Total Credits** | **14** |  |
|  |  |  |  |  |
| **Term – 8** | CSE 305 & CSE 306 | Artificial Intelligence & machine Learning & Lab | 3+1 | CSE 205, 206 |
|  | CSE 307 | Software Engineering | 3 | CSE 303 |
|  | CSE 300 | Design Project-II | 1 | CSE 207, 208, 303, 200 |
|  | CSE 309 & CSE 310 | Computer Networks & Lab | 3+1 |  |
|  | GED 316 | Industrial Management (GED 6) | 3 | Mandatory for CSE |
|  |  | **Total Credits** | **15** |  |
|  |  |  |  |  |
| **Term – 9** | CSE XXX | Major Elective 1 | 3 |  |
|  | CSE 311 | Cyber Security | 3 | CSE 211, 212, 309, 310 |
|  |  | Optional/Minor 1 | 3 |  |
|  | CSE 498A | Capstone Project 1 | 1 |  |
|  |  | **Total Credits** | **10** |  |
|  |  |  |  |  |
| **Term – 10** |  | Major Elective 2 + Lab | 3+1 |  |
|  |  | Major Elective 3 | 3 |  |
|  |  | Optional/Minor 2 | 3 |  |
|  | CSE 498B | Capstone Project 2 | 1 |  |
|  |  | **Total Credits** | **11** |  |
|  |  |  |  |  |
| **Term – 11** |  | Major Elective 4 | 3 |  |
|  |  | Optional/Minor 3 | 3 |  |
|  | CSE 498C | Capstone Project 3 | 2 |  |
|  |  | **Total Credits** | **8** |  |
|  |  |  |  |  |
| **Term – 12** | CSE 499 | Internship / Project | 1 |  |
|  |  | **Total Credits** | **1** |  |