**Green University of Bangladesh**

**Department of Computer Science and Engineering**

Program: B.Sc. in Computer Science and Engineering (DAY)

Checklist for Requirements of Degree Completion (131 to 153 Batches)

**Student Name: Student ID:**

|  |  |  |  |
| --- | --- | --- | --- |
| Course Code | Course Title | Credit | Grade obtained |

**General Education: 18 Credits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Language Courses (Those Course are Compulsory):** | | | |
| EAP 009 | English for Academic Purpose | 0.0 |  |
| EAP 101/ENG 101 | English for Academic Purpose I/Basic English | 3.0 |  |
| EAP 102 | English for Academic Purpose II (Additional) | 3.0 |  |
| **GED Courses (Those Courses are Compulsory):** | | | |
| GED 101 | Engineering Economics | 3.0 |  |
| GED 301 | Financial and Managerial Accounting | 3.0 |  |
| GED 303 | Industrial Management | 3.0 |  |
| PSD 400 | Professional Life Skills Development | 0.0 |  |
| **GED Optional Course (Minimum one course is Compulsory):** | | | |
| GED 401 | Sociology | 3.0 |  |
| GED 403 | Bangladesh Studies | 3.0 |  |
| GED 405 | Business Law | 3.0 |  |
| GED 407 | Ethics | 3.0 |  |

**Basic Sciences (All are Compulsory): 36 Credits**

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| --- | --- | --- | --- |
| CHE 101 | Chemistry | 3.0 |  |
| CHE 102 | Chemistry Lab | 1.5 |  |
| PHY 101 | Physics | 3.0 |  |
| PHY 102 | Physics Lab | 1.5 |  |
| MAT 101 | Differential Calculus & Co-ordinate Geometry | 3.0 |  |
| MAT 103 | Integral Calculus, Ordinary and Partial Differential Equations | 3.0 |  |
| MAT 201 | Matrices, Vectors, Fourier Analysis and Laplace Transform | 3.0 |  |
| MAT 203 | Complex Variables and Statistics | 3.0 |  |
| EEE 101 | Introduction to Electrical Engineering | 3.0 |  |
| EEE 102 | Introduction to Electrical Engineering Lab | 1.5 |  |
| EEE 201 | Electronic Devices and Circuits | 3.0 |  |
| EEE 202 | Electronic Devices and Circuits Lab | 1.5 |  |
| EEE 203 | Digital Electronics and Pulse Techniques | 3.0 |  |
| EEE 204 | Digital Electronics and Pulse Techniques Lab | 1.5 |  |
| CSE 306 | Engineering Drawing | 1.5 |  |

**CSE Core Courses (All are Compulsory): 81 Credits**

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| --- | --- | --- | --- |
| CSE 101 | Introduction to Computer Systems | 3.0 |  |
| CSE 103 | Structured Programming Language | 3.0 |  |
| CSE 104 | Structured Programming Language Lab | 1.5 |  |
| CSE 105 | Discrete Mathematics | 3.0 |  |
| CSE 201 | Object Oriented Programming | 3.0 |  |
| CSE 202 | Object Oriented Programming Lab | 1.5 |  |
| CSE 203 | Data Structures | 3.0 |  |
| CSE 204 | Data Structures Lab | 1.5 |  |
| CSE 205 | Digital Logic Design | 3.0 |  |
| CSE 206 | Digital Logic Design Lab | 1.5 |  |
| CSE 207 | Algorithms | 3.0 |  |
| CSE 208 | Algorithms Lab | 1.5 |  |
| CSE 209 | Mathematical Analysis for Computer Science | 3 |  |
| CSE 212 | Numerical Methods | 1.5 |  |
| CSE 301 | Database | 3.0 |  |
| CSE 302 | Database Lab | 1.5 |  |
| CSE 303 | Computer Architecture | 3.0 |  |
| CSE 307 | Data Communication | 3.0 |  |
| CSE 308 | Data Communication Lab | 1.5 |  |
| CSE 309 | Microprocessor and Assembly Language | 3.0 |  |
| CSE 310 | Microprocessor and Assembly Language Lab | 1.5 |  |
| CSE 311 | Computer Networks | 3.0 |  |
| CSE 312 | Computer Networks Lab | 1.5 |  |
| CSE 313 | Operating System | 3.0 |  |
| CSE 314 | Operating System Lab | 1.5 |  |
| CSE 315 | Compiler Design | 3.0 |  |
| CSE 403 | Computer Graphics | 3.0 |  |
| CSE 404 | Computer Graphics Lab | 1.5 |  |
| CSE 405 | Software Engineering | 3.0 |  |
| CSE 406 | Software Engineering Lab | 1.5 |  |
| CSE 408 | Software Development | 1.5 |  |
| CSE 409 | Artificial Intelligence | 3.0 |  |
| CSE 400 | Project/Thesis | 6.0 |  |

1. **Four (4) courses from Option-I**
2. **One (1) Course from Option-I and Two (2) courses with corresponding Lab from Option-II.**

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| --- | --- | --- | --- |
| **Optional I** | | | |
| CSE 411 | Introduction to Natural Language Processing | 3.0 |  |
| CSE 413 | Wireless Networks | 3.0 |  |
| CSE 415 | Cryptography and Network Security | 3.0 |  |
| CSE 417 | Basic Graph Theory | 3.0 |  |
| CSE 419 | Computational Geometry | 3.0 |  |
| CSE 421 | Multimedia Systems | 3.0 |  |
| CSE 423 | E-commerce and Internet Security | 3.0 |  |
| CSE 425 | Software Quality Assurance | 3.0 |  |
| CSE 427 | Parallel and Distributed Computing | 3.0 |  |
| **Total Credits:** | |  | |
| **Optional II** | | | |
| CSE 429 | Simulation and Modelling | 3.0 |  |
| CSE 430 | Simulation and Modelling Lab | 1.5 |  |
| CSE 431 | Pattern Recognition | 3.0 |  |
| CSE 432 | Pattern Recognition Lab | 1.5 |  |
| CSE 433 | Microcontrollers & Computer Interfacing | 3.0 |  |
| CSE 434 | Microcontrollers & Computer Interfacing Lab | 1.5 |  |
| CSE 435 | Digital System Design | 3.0 |  |
| CSE 436 | Digital System Design Lab | 1.5 |  |
| CSE 437 | HTML and Web Engineering | 3.0 |  |
| CSE 438 | HTML and Web Engineering Lab | 1.5 |  |
| CSE 439 | VLSI Design | 3.0 |  |
| CSE 440 | VLSI Design Lab | 1.5 |  |
| CSE 441 | Mobile Computing and Applications | 3.0 |  |
| CSE 442 | Mobile Computing and Applications Lab | 1.5 |  |
| CSE 443 | Advance Software Engineering | 3.0 |  |
| CSE 444 | Advance Software Engineering Lab | 1.5 |  |
| **Total Credits:** | |  | |

**Total credits completed at Green University of Bangladesh:**

**Total credits waived by Green University of Bangladesh:**

**Total credits transferred from other institution(s):**

**Total credit requirement completed to obtain B.Sc. in CSE: 144 CGPA:**

**Credit requirement of university : 3**

**Total : 147**