



Institute of Information Technology (IIT)

Noakhali Science and Technology University

BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING (BSSE)
January 2020

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Bachelor of Science in Software Engineering (BSSE)

Semester 1

| Course Code | Course Title | Credit | Theory | Lab |
|------------------|--|-----------|-----------|----------|
| CSE 1101 | Structured Programming | 1 | 1 | 0 |
| CSE 1102 | Structured Programming Lab | 2 | 0 | 2 |
| CSE 1103 | Discrete Mathematics | 3 | 3 | 0 |
| STAT 1105 | Probability and Statistics for Engineers-I | 3 | 3 | 0 |
| MATH 1107 | Calculus and Analytical Geometry | 3 | 3 | 0 |
| GE 1109 | Soft Skill Communication | 3 | 3 | 0 |
| GE 1111 | Technology and Society | 2 | 2 | 0 |
| GE 1112 | Technology and Society Lab | 1 | 0 | 1 |
| SE 1113 | Introduction to Software Engineering | 3 | 3 | 0 |
| 9 Courses | | 21 | 18 | 3 |

Semester 2

| Course Code | Course Title | Credit | Theory | Lab |
|-------------------|---|-----------|-----------|----------|
| CSE 1201 | Data Structure | 1 | 1 | 0 |
| CSE 1202 | Data Structure Lab | 2 | 0 | 2 |
| CSE 1203 | Computer Organization | 2 | 2 | 0 |
| CSE 1204 | Computer Organization Lab | 1 | 0 | 1 |
| STAT 1205 | Probability and Statistics for Engineers-II | 3 | 3 | 0 |
| MATH 1207 | Ordinary Differential Equations | 3 | 3 | 0 |
| GE 1209 | History of Emergence of Bangladesh | 3 | 3 | 0 |
| GE 1211 | Bengali Literature | 3 | 3 | 0 |
| SE 1213 | Object Oriented Concepts I | 2 | 2 | 0 |
| SE 1214 | Object Oriented Concepts I Lab | 1 | 0 | 1 |
| 10 Courses | | 21 | 17 | 4 |

Semester 3

| Course Code | Course Title | Credit | Theory | Lab |
|-------------------|--------------------------------------|-----------|-----------|----------|
| CSE 2101 | Algorithm Analysis | 2 | 2 | 0 |
| CSE 2102 | Algorithm Analysis Lab | 1 | 0 | 1 |
| SE 2103 | Theory of Computation | 2 | 2 | 0 |
| SE 2104 | Theory of Computation Lab | 1 | 0 | 1 |
| CSE 2105 | Computer Networks | 2 | 2 | 0 |
| CSE 2106 | Computer Networks Lab | 1 | 0 | 1 |
| MATH 2107 | Numerical Analysis for Engineers | 2 | 2 | 0 |
| MATH 2108 | Numerical Analysis for Engineers Lab | 1 | 0 | 1 |
| SE 2109 | Object Oriented Concepts II | 2 | 2 | 0 |
| SE 2110 | Object Oriented Concepts II Lab | 1 | 0 | 1 |
| SE 2112 | Software project Lab I | 3 | 0 | 3 |
| 11 Courses | | 18 | 10 | 8 |

Semester 4

| Course Code | Course Title | Credit | Theory | Lab |
|-------------------|--|-----------|-----------|----------|
| CSE 2201 | Operating Systems and System Programming | 2 | 2 | 0 |
| CSE 2202 | Operating Systems and System Programming Lab | 1 | 0 | 1 |
| GE 2203 | Business Psychology | 3 | 3 | 0 |
| CSE 2205 | Information Security | 2 | 2 | 0 |
| CSE 2206 | Information Security Lab | 1 | 0 | 1 |
| CSE 2207 | Database Management System-I | 2 | 2 | 0 |
| CSE 2208 | Database Management System-I Lab | 1 | 0 | 1 |
| SE 2209 | Software Requirements Spec. and Analysis | 2 | 2 | 0 |
| SE 2210 | Software Requirements Spec. and Analysis Lab | 1 | 0 | 1 |
| BUS 2211 | Business Studies for Engineers | 3 | 3 | 0 |
| 10 Courses | | 18 | 14 | 4 |

Semester 5

| Course Code | Course Title | Credit | Theory | Lab |
|-------------------|---|-----------|----------|----------|
| SE 3101 | Professional Ethics for Information Systems | 3 | 3 | 0 |
| CSE 3103 | Web Technology | 1 | 1 | 0 |
| CSE 3104 | Web Technology Lab | 2 | 0 | 2 |
| CSE 3105 | Data Science and Analytics – DBMS II | 1 | 1 | 0 |
| CSE 3106 | Data Science and Analytics – DBMS II Lab | 2 | 0 | 2 |
| BUS 3107 | Business Communications | 2 | 2 | 0 |
| BUS 3108 | Business Communications Lab | 1 | 0 | 1 |
| SE 3109 | Design Pattern | 2 | 2 | 0 |
| SE 3110 | Design Pattern Lab | 1 | 0 | 1 |
| SE 3112 | Software Project Lab II | 3 | 0 | 3 |
| 10 Courses | | 18 | 9 | 9 |

Semester 6

| Course Code | Course Title | Credit | Theory | Lab |
|-------------------|--|-----------|-----------|----------|
| CSE 3201 | Distributed Systems | 1 | 1 | 0 |
| CSE 3202 | Distributed Systems Lab | 2 | 0 | 2 |
| SE 3203 | Software Metrics | 2 | 2 | 0 |
| SE 3204 | Software Metrics Lab | 1 | 0 | 1 |
| SE 3205 | Software Security | 2 | 2 | 0 |
| SE 3206 | Software Security Lab | 1 | 0 | 1 |
| CSE 3207 | Artificial Intelligence | 2 | 2 | 0 |
| CSE 3208 | Artificial Intelligence Lab | 1 | 0 | 1 |
| SE 3209 | Software Testing and Quality Assurance | 2 | 2 | 0 |
| SE 3210 | Software Testing and Quality Assurance Lab | 1 | 0 | 1 |
| SE 3211 | Software Design and Architecture | 2 | 2 | 0 |
| SE 3212 | Software Design and Architecture Lab | 1 | 0 | 1 |
| 12 Courses | | 18 | 11 | 7 |

Semester 7

| Course Code | Course Title | Credit | Theory | Lab |
|------------------|--------------|-----------|----------|-----------|
| SE 4100 | Internship | 18 | 0 | 18 |
| 1 Courses | | 18 | 0 | 18 |

Semester 8

| Course Code | Course Title | Credit | Theory | Lab |
|------------------|---------------------------------|-----------|----------|-----------|
| SE 4202 | Project | 6 | 0 | 6 |
| SE 4203 | Software Maintenance | 2 | 2 | 0 |
| SE 4204 | Software Maintenance Lab | 1 | 0 | 1 |
| SE 4205 | Software Project Management | 2 | 2 | 0 |
| SE 4206 | Software Project Management Lab | 1 | 0 | 1 |
| SE/CSE 42XX | Elective | 3 | 2 | 1 |
| SE/CSE 42XX | Elective | 3 | 2 | 1 |
| 5 Courses | | 18 | 8 | 10 |

Summery

| Title | No of Subject | Credit | |
|-------|---------------|--------------|--|
| CSE | 14 | 42 | |
| MATH | 3 | 9 | |
| STAT | 2 | 6 | |
| GE | 5 | 15 | |
| SE | 17+1+1 | 51+18+6 = 75 | |
| BUS | 1 | 3 | |