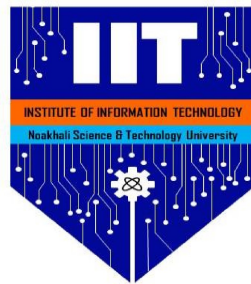




Institute of Information Technology (IIT)

Noakhali Science and Technology University



Syllabus for

BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING (BSSE)

Institute of Information Technology (IIT)

Noakhali Science and Technology University

Syllabus for Bachelor of Science in Software Engineering (BSSE)

Semester 1

Course Code	Course Title	Credit	Theory	Lab
CSE 101	Structured Programming	3	1	2
CSE 102	Discrete Mathematics	3	3	0
STAT 103	Probability and Statistics for Engineers-I	3	3	0
MATH 104	Calculus and Analytical Geometry	3	3	0
GE 105	Technology and Society	3	2	1
GE 106	Soft Skill Communication	3	3	0
SE 107	Introduction to Software Engineering	3	3	0
7 Courses		21	18	3

Semester 2

Course Code	Course Title	Credit	Theory	Lab
CSE 201	Data Structure	3	1	2
STAT 203	Probability and Statistics for Engineers-II	3	3	0
MATH 204	Ordinary Differential Equations	3	3	0
SE 206	Object Oriented Concepts I	3	2	1
CSE 211	Computer Organization	3	2	1
GE 212	History of Emergence of Bangladesh	3	3	0
GE 213	Bengali Literature	3	3	0
7 Courses		21	17	4

Semester 3

Course Code	Course Title	Credit	Theory	Lab
CSE 301	Algorithm Analysis	3	2	1
MATH 304	Numerical Analysis for Engineers	3	2	1
SE 305	Software Project Lab I	3	0	3
SE 306	Object Oriented Concepts II	3	2	1
CSE 311	Computer Networks	3	2	1
SE 312	Theory of Computation	3	2	1
6 Courses		18	10	8

Semester 4

Course Code	Course Title	Credit	Theory	Lab
CSE 401	Operating Systems and System Programming	3	2	1
GE 402	Business Psychology	3	3	0
CSE 404	Database Management System-I	3	2	1
BUS 405	Business Studies for Engineers	3	3	0
SE 406	Software Requirements Spec. and Analysis	3	2	1
CSE 411	Information Security	3	2	1
6 Courses		18	14	4

Semester 5

Course Code	Course Title	Credit	Theory	Lab
CSE 501	Professional Ethics for Information Systems	3	3	0
CSE 502	Web Technology	3	1	2
BUS 503	Business Communications	3	2	1
CSE 504	Data Science and Analytics – DBMS II	3	1	2
SE 505	Software Project Lab II	3	0	3
SE 506	Design Pattern	3	2	1
6 Courses		18	9	9

Semester 6

Course Code	Course Title	Credit	Theory	Lab
CSE 601	Distributed Systems	3	1	2
CSE 604	Artificial Intelligence	3	2	1
SE 605	Software Testing and Quality Assurance	3	2	1
SE 606	Software Design and Architecture	3	2	1
SE 611	Software Metrics	3	2	1
SE 612	Software Security	3	2	1
6 Courses		18	11	7

Semester 7

Course Code	Course Title	Credit	Theory	Lab
SE 701	Internship	18	0	18
1 Courses		18	0	18

Semester 8

Course Code	Course Title	Credit	Theory	Lab
SE 801	Project	6	0	6
SE 803	Software Project Management	3	2	1
SE 811	Software Maintenance	3	2	1
CSE / SE / BUS 8XX	Elective	3	2	1
CSE / SE / BUS 8XX	Elective	3	2	1
5 Courses		18	8	10

Elective course:

Serial No	Course Code	Course Title
1.	CSE42xx	Human Computer Interaction
2.	CSE42xx	Numeric Computation for Financial Modeling
3.	CSE42xx	Data Mining and Warehousing
4.	CSE42xx	Enterprise Information System
5.	CSE42xx	Image Processing
6.	CSE42xx	Mobile and Wireless Computing
7.	CSE42xx	Computer Graphics and Multimedia.
8.	CSE42xx	Machine Learning
9.	CSE42xx	Information Retrieval
10.	SE42xx	Software Artifact Analysis
11.	SE42xx	Strategic Management
12.	SE42xx	Software Configuration Management
13.	SE42xx	Mining Largescale Software Data
14.	SE42xx	Software Re-engineering
15.	SE42xx	Software Reusability
16.	SE42xx	Software Verification and Validation
17.	SE42xx	Risk and Reliability Management
18.	SE42xx	Architecture and Modeling of Software Systems