Department of Computer Science and Engineering
Khulna University of Engineering & Technology
Khulna - 9203, Bangladesh

1st year Course Plan

1. CSE 1100 (Introduction to Computer Systems) Credit: 1.5

To be uploaded soon

2. CSE 1107 (Discrete Mathematics) Credit : 3.0

a) Course Teacher: Dr. M. M. A. Hashem and Mehnuma Tabassum Omar

b) Learning Outcome:

- ✓ Explain the concepts of relations and their properties, and equivalence relations.
- ✓ Discuss and identify core of analysis, algebra and applied mathematics.
- ✓ Explain the principles and techniques of a number of application areas of discrete structures.
- ✓ Identify appropriate methods of proof.
- ✓ Identify a range of solutions and critically evaluate and justify proposed design solutions.
- ✓ Summarize the proposed solutions ad their results.
- ✓ Restrict solution methodologies upon their results.
- ✓ Establish criteria, and verify solutions.
- ✓ Apply basics of the logic principles
- ✓ Apply tools and techniques for the design and development of applications.

c) Schedule:

SL.	Topics
1	Basic concept of sets.
2	Number Theory & its Application
3	Basic concept of sets.
4	Number Theory & its Application
5	Various operations of sets.
6	Prepositional calculus
7	Prepositional calculus
8	Basics of functions.
9	Predicate calculus
10	One-to-one and onto functions, Graphs of functions.
11	Induction
12	Some other important functions.
13	Induction
14	Relations and their properties

15	Induction
16	Relations and their properties
17	Contradiction
18	n-ary relations and their applications, representing relations
19	Equivalence relations
20	Contradiction
21	Closures of relations
22	Partial orderings
23	Recursion
24	Sequences and Summations
25	Sequences and Summations
26	Recursion
27	Basics of counting, pigeonhole principle
28	Graph Theory: Undirected graphs, directed graphs
29	Basics of counting, pigeonhole principle
30	Permutations and combinations
31	Graph Theory: Undirected graphs, directed graphs
32	Permutations and combinations
33	Recurrence relations
34	Trees: trees, spanning trees.
35	Recurrence relations
36	Generating Functions
37	Algebraic Structures: Semi groups, Groups
38	Permutation Groups, Ring, Field
39	Groups: Basic algebra in groups, cyclic groups.

d) Date of class tests: 28/02/2018, 05/05/03/2018, 02/04/2018 (**Tentative**)

3. EEE 1107 (Basic Electrical Engineering) **Credit : 3.0**

To be uploaded soon

4. EEE 1102 (Basic Electrical Engineering Laboratory) **Credit : 1.5**

To be uploaded soon

5. HUM 1107 (English and Human Communication) **Credit : 3.0**

To be uploaded soon

6. HUM 1108 (English and Human Communication Laboratory) **Credit : 1.5**

To be uploaded soon

7. MATH 1107 (Differential and Integral Calculus) **Credit : 3.0**

To be uploaded soon

8. PHY 1107 (Physics) **Credit : 3.0**

To be uploaded soon

9. PHY 1108 (Physics Laboratory) **Credit : 1.5**

To be uploaded soon