COURSE OUTLINE

1. **Program: B.Sc. Engg.**
2. **Course Code: CSE 406**
3. **Course Title: Computer Security Sessional**
4. **Level/Term: L-4/T-1 Section: A, B**
5. **Academic Session: January 2023**
6. **Credit Hour: 0.75**
7. **Office/ Room: Computer Laboratory (CL)**
8. **Consultation Hours: 3/Week**
9. **Prerequisite: CSE 313, CSE 321**

Course Teacher(s):

Name:	Designation	E-mail
Abdur Rashid Tushar (ART)	**Lecturer**	artushar@cse.buet.ac.bd
Md. Ruhan Islam (MRI)	**Lecturer**	thisisruhan@gmail.com
Saem Hasan (SMH)	**Lecturer**	saemhasan027@gmail.com

Course Synopsis:
Sessional based on CSE 405

Course Objective (CO):
After the completion of this course the students will be able to:
1. Implement commonly used encryption algorithms
2. Investigate and defend against the security flaws in software and systems

Course Outcomes (CO) and their mapping with Program outcomes (PO) and Teaching-Learning Assessment methods:

CO No.	CO Statements: Upon successful completion of the course, students should be able to:	Corresponding POs (Appendix-1)	Bloom's taxonomy domain/level (Appendix-2)	Delivery methods and activities	Assessment Tools
CO1	Implement commonly used encryption algorithms	3	3	Tutorial, multimedia	Assignment, Viva
CO2	Investigate and defend against the security flaws in software and systems	4	4	Tutorial, multimedia	Online, Viva, Project

Weekly schedule:

Week	Topics	CO
Week 1	No Class	-
Week 2	Assignment 1 (Cryptography) Declaration of all sections	CO1
Week 3	Lab Demonstration for Online on Buffer Overflow	CO2
Week 4	Assignment 1 Evaluation + Online on Buffer Overflow (A1/B1)	CO1, CO2
Week 5	Assignment 1 Evaluation + Online on Buffer Overflow (A2/B2)	CO1, CO2
Week 6	Demonstration of Security tools Project Assignment for Groups	CO1, CO2
Week 7	Assignment 2 (Malware Design) Declaration of all sections	CO2
Week 8	Assignment 2 Evaluation + Project Evaluation Part 1 (A1/B1)	CO1, CO2
Week 9	Assignment 2 Evaluation + Project Evaluation Part 1 (A2/B2) Lab Demonstration of Firewall	CO1, CO2
Week 10	Online on Firewall (A2/B2)	CO2
Week 11	Online on Firewall (A1/B1)	CO2
Week 12	Final Project Evaluation	CO1, CO2
Week 13	Quiz	CO1, CO2

Tentative Weights of assessments:

Assessment Type	% Weight	CO1	CO2
Assignment on Cryptography	15	15	-
Online on Buffer Overflow	10	-	10
Assignment on Malware	15		15
Online on Firewall	10		10
Project	25	5	20
Quiz	25	10	15
Total	**100**	**30**	**70**

Special Instruction:

*** Please DO NOT COPY solutions from anywhere (your friends, seniors, internet etc.). Any form of plagiarism (irrespective of source or destination), will result in getting -100% marks in the online/offline**

Prepared by:	Abdur Rashid Tushar
Checked by: Approved by:	1. Md. Ruhan Islam 2. Saem Hasan Abdur Rashid Tushar

Appendix 1:

Washington Accord Program Outcomes (PO) for engineering programs:

No.	PO	Differentiating Characteristic
1	Engineering Knowledge	Breadth and depth of education and type of knowledge, both theoretical and practical
2	Problem Analysis	Complexity of analysis
3	Design/ development of solutions	Breadth and uniqueness of engineering problems i.e. the extent to which problems are original and to which solutions have previously been identified or codified
4	Investigation	Breadth and depth of investigation and experimentation
5	Modern Tool Usage	Level of understanding of the appropriateness of the tool
6	The Engineer and Society	Level of knowledge and responsibility
7	Environment and Sustainability	Type of solutions.
8	Ethics	Understanding and level of practice
9	Individual and Team work	Role in and diversity of team
10	Communication	Level of communication according to type of activities performed
11	Project Management and Finance	Level of management required for differing types of activity
12	Lifelong learning	Preparation for and depth of Continuing learning.

Appendix 2:

Bloom's Taxonomy Revised Version

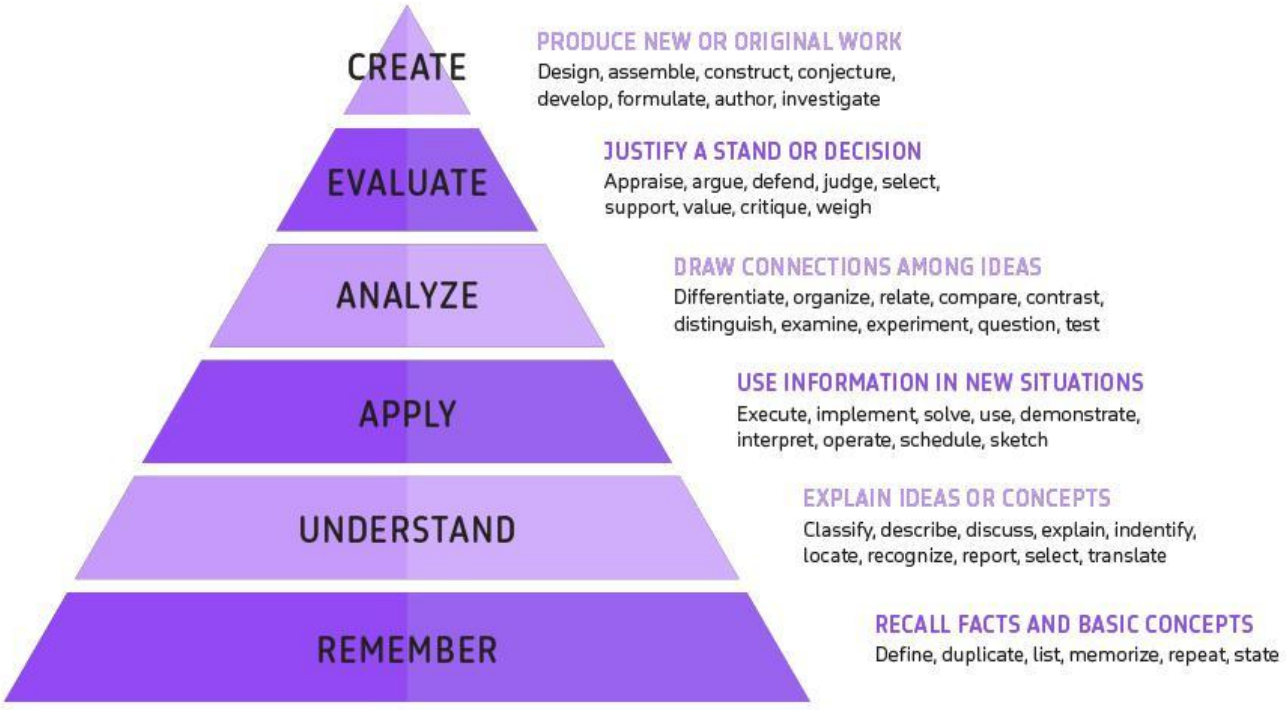

Image Source: Vanderbilt University Center for Teaching

Appendix-3

BUET Grading Policy:

Numeric Grade	Letter Grade	Grade Point
80% and above	A+	4.00
75% to less than 80%	A	3.75
70% to less than 75%	A-	3.50
65% to less than 70%	B+	3.25
60% to less than 65%	B	3.00
55% to less than 60%	B-	2.75
50% to less than 55%	C+	2.50
45% to less than 50%	C	2.25
40% to less than 45%	D	2.00
Less than 40%	F	0.00