

# SYLLABUS

UNDER GRADUATE DIPLOMA IN CYBER  
SECURITY



ENLIGHTENMENT TO PERFECTION  
2018-19

University of North Bengal

# OUTLINE OF COURSE STRUCTURE

## Under Graduate Diploma in Cyber Security

(Session: 2024-25)

### SEMESTER-I

Course Code	Name of the module	Marks	Credit	Hours/Week
<b>Course (Theoretical)</b>				
CYSD 101	Introduction To Cyber Security & Networks	40	2	4
CYSD 102	Python Programing	40	2	4
CYSD 103	Ethical Hacking	40	2	4
<b>Course (Practical)</b>				
CYSD 104	Network Penetrations Lab	40	2	5
CYSD 105	Python Programing Lab	40	2	5
CYSD 106	Web Application Penetrations Lab	40	2	5
<b>Continuing Evaluation</b>				
CYSPDG 107	Exam	15	2	2
CYSD 108	Project	45	2	1
<b>Total Marks &amp; Credits in the Semester I</b>		<b>300</b>	<b>16</b>	<b>30</b>

# Detailed Syllabus

## Semester-I

Course Code	Name of the module	Marks
CYSD (101)	Python Programing	40

### Unit-1: Python Installation/Environment Setup

Python Basic Syntax  
Python Variables  
Python Data Types  
Python Operators  
Python Basic Syntax  
Python Control Flow – Decision making/Conditional statements  
Python Control Flow – Loop statements  
Python Control Flow – Branching statements  
String handling in Python  
Python Data Structures  
Python Functions  
Python Modules  
Python IO (Input & Output)

CYSD (102)	Introduction To Cyber Security & Network	40
------------	--	----

### Unit-I: Cyber Security Basics

### Unit-II: Networks Basics

**CYSD (103)**

**Ethical Hacking**

Unit-1 : Introduction

Unit-2 : Information Gathering

Unit-3 : Brush up Linux (Optional)

Unit-4 : Scanning

**Unit-5 : Syatem Hacking:**

Introduction to Metasploit Framework Exploit MS17-010 Vulnerability  
Reerse TCP Connection

**CYSD(104)**

**Python Programing (Practical)**

**Unit-1: Python Installation/Environment Setup**

Python Basic Syntax  
Python Variables  
Python Data Types  
Python Operators  
Python Basic Syntax  
Python Control Flow – Decision making/Conditional statements  
Python Control Flow – Loop statements  
Python Control Flow – Branching statements  
String handling in Python  
Python Data Structures  
Python Functions  
Python Modules  
Python IO (Input & Output)

**CYSD (105)**

**Introduction To Cyber Security & Network (Practical)**

**40**

**Unit-I: Cyber Security Basics**

**Unit-II: Networks Basics**

**CYSD (106)**

**Ethical Hacking (Practical)**

**40**

Unit-1 : Introduction

Unit-2 : Information Gathering

Unit-3 : Brush up Linux (Optional)

Unit-4 : Scanning

**Unit-5 : Syatem Hacking:**

Introduction to Metasploit Framework Exploit MS17-010 Vulnerability

Reerse TCP Connection

<b>CYSD (107)</b>	<b>Continuing Evaluation</b> Seminar from a bunch of topics to be offered by the teachers	<b>15</b>
<b>CYSD (108)</b>	<b>Continuing Evaluation</b> Class tests	<b>45</b>

