

Noorul Islam Centre for Higher Education

(Deemed to be University u/s 3 of the UGC Act 1956)

Kumaracoil, Thuckalay, Kanyakumari District - 629 180

Accredited by NAAC with 'A' Grade

CY25 M.E CYBER SECURITY



Student Performance and Learning Outcomes

CY25 M.E CYBER SECURITY

Programme Outcome(PO)	
PO-A	Students gain knowledge about the basic concepts of cyber security needs of an organization and effectively apply this basic knowledge of security needs and principles to solve technical problems.
PO-B	Enable students to acquire knowledge about threats, how they materialize, typical attacks and how those attacks exploit vulnerabilities which mainly affect the organizational processes and decision-making.
PO-C	Make students to create, select and apply appropriate tools, techniques, resources and skills to complex engineering activities and to solve the various cyber security challenges in the society in a global and social context.
PO-D	Help students to understand the different investigation and forensics tools, techniques and to apply the ethical principles related with cyber crime.
PO-E	Enable students to function effectively as an individual or as member in teams and have the ability to engage in continuous learning in the broadest context of technological change.
PO-F	Enable students to utilize research-based knowledge and formulate research problems in the cyber security field.
PO-G	Drive students through technology innovation by means of scientific and social advancements.
PO-H	Make students to apply the foundational knowledge of cyber crimes, threats, vulnerabilities, biometric concepts to network systems of varying complexity.

PROGRAMME SPECIFIC OUTCOMES (PSO)	
PSO1	To deliver knowledge about the various Cyber tools and techniques.
PSO2	To identify and analyze the different cyber problems that exists in the system.
PSO3	To build cyber solutions to solve the problem related with cyber ethics.

Sl.No	Subject Code	Subject Name
SEMESTER II		
1.	CY2505	Cybercrime Investigations and Digital Forensics
2.	CY2506	Database Design and Security
3.	CY2507	Distributed Systems Security
4.	CY2508	Advanced Network Security
5.	CY2509	Cyber Law and Security Policies
6.	CY25A3	Biometric Security
7.	CY2572	Database and Cyber Security Lab
SEMESTER IV		
8.	CY25P5	Project Work Phase-II

CY2505-CYBERCRIME INVESTIGATIONS AND DIGITAL FORENSICS	
CO1	Students should able to understand cybercrime issues and related laws.
CO2	Students should able to analyze various cybercrimes.
CO3	Students should able to investigate cybercrimes using tools and techniques.
CO4	Students should able to explore methodology of incident response and various security issues in internet world, and identify digital forensic tools for data collection.
CO5	Students should able to recognize the importance of digital forensic tools for analysis to achieve adequate perspectives of digital forensic investigation in various system.

CY2506-DATABASE DESIGN AND SECURITY	
CO1	Understanding the basics of database systems and the related concepts
CO2	Gaining knowledge regarding the transactions done with the help of databases and applying it in the real world
CO3	Understanding the basic concepts of database security
CO4	Analyzing the requirements to provide secure database systems
CO5	Applying the methods to ensure safety and security of the database systems

CY2507-DISTRIBUTED SYSTEMS SECURITY	
CO1	Understand the basic concepts of Security in Engineering and about the security issues and technologies.
CO2	Have knowledge on the infrastructure and network level threats and vulnerabilities.
CO3	Analyze the application level and service level threats and vulnerabilities.
CO4	Apply infrastructure and application level solutions for threats.
CO5	Get familiar and analyze the security policies and architectures for SOA security.

CY2508-ADVANCED NETWORK SECURITY	
CO1	Understand the basic concepts of IP security.
CO2	Interpret the various security services for Electronic Mail.

CO3	Identify various kinds of security breaches and common security vulnerability attacks in wireless networks.
CO4	Illustrate the process of Bluetooth security architecture and threats to Bluetooth security.
CO5	Apply modern cryptographic techniques to enhance overall system security.

CY2509-CYBER LAW AND SECURITY POLICIES

CO1	Students will get knowledge on threats to Cyber security, National and International Security efforts.
CO2	Students will learn about secure system planning and about Assurance methods.
CO3	Students will learn about Indian Cyber laws and laws in other countries and about the statutory bodies.
CO4	Students will learn about Information security tools and about rules and responsibilities of employees.
CO5	Students will learn about Security management standards and about the responsibilities of managers and employees.

CY25A3-BIOMETRIC SECURITY

CO1	Obtain the knowledge of the basic psychological and biological science and engineering principles and underlying biometric systems.
CO2	Describe the different physiological and behavioral biometrics.
CO3	Analyze various biometric technologies dealing with physiological and behavioral biometrics in terms of their competence merits and demerits.
CO4	Categorize the applications of bio metric systems and to describe various deployment issues of biometric systems.
CO5	Access the privacy risks of biometrics.

CY2572-DATABASE AND CYBER SECURITY LAB

CO1	Implement Basic DDL, DML and DCL commands
CO2	Use Aggregate and group functions to summarize data
CO3	Design and implement access control rules to assign privileges and protect data in databases.
CO4	Master in the concept of secret and public cryptographic techniques
CO5	Understand how digital signatures are performed and the role of digital certificates in providing security.

CY25P5- PROJECT WORK –PHASE II

CO1	Demonstrate a sound technical knowledge of their selected project topic.
CO2	Undertake problem identification, formulation and solution.
CO3	Design engineering solutions to complex problems utilising a systems approach.
CO4	Conduct an engineering project
CO5	Demonstrate the knowledge, skills and attitudes of a professional engineer.