

Academic Council Meeting No. and Date: 09 / July 02, 2024

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**Vidya Prasarak Mandal's
B. N. Bandodkar College of
Science (Autonomous), Thane**



**Syllabus for
Extension Work in Vertical VI - CC
Specific Programme: S.Y.B.Sc.
Co-curricular Course of
Cyber Crime Awareness
Level 5.0
CHOICE BASED GRADING SYSTEM**

**Revised Under NEP
From academic year 2024 - 2025**

Preamble

The development in digital technologies and the widespread use of the internet, mobile devices, and online platforms have transformed the way individuals, businesses, and governments operate. While cyberspace offers immense opportunities for communication, innovation, and economic growth, it has also given rise to a wide range of cyber crimes that pose serious threats to individuals, organizations, and national security. Cyber crimes such as financial frauds, identity theft, online harassment, ransomware attacks, and social engineering scams have become increasingly sophisticated, impacting all sections of society, particularly women and children.

This course is designed to provide a comprehensive understanding of cyberspace and cyber crime, with a focus on emerging threats, cybercriminals' modus operandi, and the legal and institutional framework for prevention, reporting, and redressal. It introduces learners to various classifications of cyber crimes, common attack vectors including malware, ransomware, zero-day and zero-click attacks, and the growing misuse of social media and digital payment systems.

Emphasis is placed on practical knowledge and real-world application through checklists for reporting cyber crimes, configuring privacy and security settings on social media platforms, securing mobile wallets and UPI systems, and understanding reporting mechanisms at both police stations and online portals. The course also examines the Information Technology Act, 2000 and its amendments, along with the role of national organizations involved in cyber crime investigation and cyber security in India.

Through case studies and on-field training, learners will develop the skills required to identify, prevent, report, and mitigate cyber crimes effectively. This course aims to create informed digital citizens and professionals who are capable of responding responsibly and lawfully to cyber threats in today's increasingly connected world.

Eligibility:

Candidate must belong to S.Y.B.Sc. in any subject / combination of subjects

Duration : A Semester (Semester III or IV)

Mode of conduct: Hybrid Mode (Online / Offline)

PROGRAMME OUTCOMES (PO)

The Undergraduate Programmes of Science are intended to cater quality education and attain holistic development of learners through the following programme outcomes:

➤ BACHELOR OF SCIENCE (B.Sc.)

PO1 - Disciplinary Knowledge

Lay strong foundation of conceptual learning in science. Instil ability to apply science in professional, social and personal life.

PO2 - Inculcation of Research Aptitude

Ignite spirit of inquiry, critical thinking, analytical skills and problem-solving approach which will help learner to grasp concepts related to research methodology and execute budding research ideas.

PO3 - Digital Literacy

Enhance ability to access, select and use a variety of relevant information e-resources for curricular, co-curricular and extracurricular learning process.

PO4 - Sensitization towards Environment

Build cohesive bond with nature by respecting natural resources, encouraging eco-friendly practices and creating awareness about sustainable development.

PO5 - Individuality and Team work

Encourage learner to work independently or in collaboration for achieving effective results through practical experiments, project work and research activities.

PO6 - Social and Ethical Awareness

Foster ethical principles which will help in developing rational thinking and becoming socially aware citizens. Build attitude of unbiased, truthful actions and avoid unethical behaviour in all aspects of life.

VPM's B.N.Bandodkar College of Science (Autonomous), Thane
Co-curricular Course – Cyber Crime Awareness
Syllabus

Course Code	Course Title	Credits	No. of lectures
23BU4CC608	Cyber Crime Awareness	02	45

CO1	Define cyberspace and cyber crime and list the classification and types of cyber crimes, including crimes targeting computers, mobiles, women, and children.	L1
CO2	Explain nature of common cyber crimes like financial frauds, social engineering attacks, malware, ransomware, zero-day, zero-click attacks, modus operandi of cybercriminals.	L2
CO3	Analyze cyber crime incidents and case studies to identify attack methods, vulnerabilities, reporting mechanisms, and appropriate remedial and mitigation measures.	L4
CO4	Evaluate cyber crime cases from legal and institutional perspectives by interpreting provisions of the IT Act, 2000 and its amendments, and assessing the effectiveness of reporting, redressal mechanisms, and cyber security organizations in India.	L5

	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	1	2	-	-	2
CO2	3	2	2	-	-	2
CO3	2	3	3	-	2	3
CO4	2	3	2	-	1	3

Unit I	Defining Cyberspace and Cyber Crime, Classification of cyber crimes, Common cyber crimes- cyber crime targeting computers and mobiles, cyber crime against women and children, financial frauds, social engineering attacks, malware and ransomware attacks, zero day and zero click attacks, Cybercriminals modus-operandi , Reporting of cyber crimes, Remedial and mitigation measures, Legal perspective of cyber crime, IT Act 2000 and its amendments, Cyber crime and offences, Organisations dealing with Cyber crime and Cyber security in India, Case studies	15
Practicals	<ol style="list-style-type: none"> 1. Checklist for reporting cyber crime at Cyber crime Police Station. 2. Checklist for reporting cyber crime online. 3. Reporting phishing emails 4. Basic checklist, privacy and security settings for popular Social media platforms. 5. Reporting and redressal mechanism for violations and misuse of Social media platforms. 6. Configuring security settings in Mobile Wallets and UPIs. 7. ON Field Training 8. Case Studies 	30

References:

1. Cyber Crime Impact in the New Millennium, by R. C Mishra , Auther Press. Edition 2010
2. Cyber Security Understanding Cyber Crimes, Computer Forensics and Legal Perspectives by Sumit Belapure and Nina Godbole, Wiley India Pvt. Ltd. (First Edition, 2011)
3. Security in the Digital Age: Social Media Security Threats and Vulnerabilities by Henry A. Oliver, Create Space Independent Publishing Platform. (Pearson , 13th November, 2001)

	Course Code	SEMESTER–III	Course imparts Employability (EM), Entrepreneurship (EN), Skill Development (SD)			Course integrates with Professional Ethics (PE), Gender Equity (GE), Human Value (HV), Environmental Sustainability (ES)			
		Course Title	EM	EN	SD	PE	GE	HV	ES
CC	23BU4CC608	Cyber Crime Awareness	√	√	√	√	-	-	-

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