Subject Code	Subject Name	Credits
26CS614	DIGITAL FORENSICS	4

Course Objectives

1. To understand the basics of Digital Forensics
2. To understand the various Cybercrime laws
3. To Understand Computer Forensics and how it is used in the Internet world

Learning Outcomes

After the completion of the course, the graduate will be able to

1. To learn about the various aspects of Digital Forensics.

Unit 1 - Introduction to Digital Forensics (12 Hrs.)

Introduction - Forensic Science – Digital Forensics – Digital Evidence – Introduction to the Digital Forensics Process – The identification Phase – The Collection Phase – The examination Phase – The Analysis Phase

Unit 2 - Cybercrime Law (12 Hrs.)

Introduction to Cybercrime Law – The International Legal Framework of Cybercrime Law – Digital Crime Substantive Criminal Law – Investigation Methods for Collecting Digital Evidence – International Cooperation in Order to College Digital Evidence

Unit 3 - Digital Forensic Readiness (12 Hrs.)

Digital Forensic Readiness – Definition – Law Enforcement for versus Enterprise Digital Forensic Readiness – Why? A Rational for Digital Forensic Readiness – Frameworks, Standards and Methodologies – Becoming Digital Forensic Ready – Enterprise Digital Forensic Readiness – Becoming Digital Forensic Ready – Enterprise Digital Forensic Readiness

Unit 4 - Computer Forensics (12 Hrs.)

Introduction to Computer Forensics – Evidence Collection – Examination of Disk Structures and File Systems – Introduction to Mobile and Embedded Forensics – Collection Phase – Examination Phase – Reverse Engineering and Analysis of Applications

Unit 5 - Internet Forensics (12 Hrs.)

Introduction to Internet Forensics – Computer Networking – Tracing Information on the Internet – Collection Phase: Local, Network, Remote Acquisitions - Other Considerations – The Examination and Analysis Phases – Challenges in Digital Forensics – Computational Forensics – Automation and Standardization

References:

1. Årnes, André, ed. *Digital forensics*. John Wiley & Sons, 2017.
2. Lin, Xiaodong, Xiaodong Lin, and Lagerstrom-Fife. *Introductory Computer Forensics*. Springer International Publishing, 2018.