

The logo of Galgotias University, featuring a stylized 'G' composed of three curved, overlapping bands in shades of yellow, blue, and red.

UNIT I

Introduction to Cyber Security

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What is “cybersecurity?”

Cybersecurity:

“ Information Security ”

- **Information security:** The protection of information against unauthorized disclosure, transfer, modification, or destruction, whether accidental or intentional.

cybersecurity = security of
information systems
and networks
+ with the goal of protecting
operations and assets

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cybersecurity = security of information systems and networks in the face of attacks, accidents and failures with the goal of protecting operations and assets

What is Cyber Security?

Cyber security consists of technologies, processes and controls designed to protect systems, networks, programs, devices and data from cyber attacks.

Vision

- To build a secure and resilient cyberspace for citizens, business, and government and also to protect anyone from intervening in your privacy.

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Mission

- To protect information and information infrastructure in cyberspace, build capabilities to prevent and respond to cyber threat, reduce vulnerabilities and minimize damage from cyber incidents through a combination of institutional structures, people, processes, technology, and cooperation.

Cybersecurity:

“The vulnerability of any computing system, software program, or critical infrastructure to, or by unauthorized means of, the Internet, public or private telecommunications systems or other similar conduct that violates Federal, State, or international law, or that threatens public health or safety.”

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cybersecurity: “information assurance, including scientific, technical, management, or any other relevant disciplines required to ensure computer and network security, including, but not limited to, a discipline related to the following functions:

- (A) Secure System and network administration and operations.
- (B) Systems security engineering.
- (C) Information assurance systems and product acquisition.
- (D) Cryptography.
- (E) Threat and vulnerability assessment, including risk management.
- (F) Web security.
- (G) Operations of computer emergency response teams.
- (H) Cybersecurity training, education, and management.
- (I) Computer forensics.
- (J) Defensive information operations.

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According to S. 1900 “Cyberterrorism Preparedness Act of 2002 ”:

cybersecurity: “information assurance, including information security, information technology disaster recovery, and information privacy.”



Type of Cybersecurity:

Corporate cybersecurity = availability, integrity and secrecy of information systems and networks in the face of attacks, accidents and failures with the goal of protecting a corporation's operations and assets

National cybersecurity = availability, integrity and secrecy of the information systems and networks in the face of attacks, accidents and failures with the goal of protecting a nation's operations and assets

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References:

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- Cybersecurity: An Essential Guide to Computer and Cyber Security for Beginners, Including Ethical Hacking, Risk Assessment, Social Engineering, Attack and Defense Strategies, and Cyberwarfare, Paperback – December 11, 2018, by [Lester Evans](#) (Author)

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Thank You