CYBER SECURITY

UNIT 2

Risk Management

- Risk management: identification, assessment, and prioritization of risks

- Managing risk is one of the key responsibilities of every manager within the organization

- In any well-developed risk management program, three formal processes are at work
  - Risk identification
  - Risk assessment
  - Risk control

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"If you know the enemy and know yourself, you need not fear the result of a hundred battles.

If you know yourself but not the enemy, for every victory gained you will also suffer a defeat.

If you know neither the enemy nor yourself, you will succumb in every battle"

-- Sun Tzu

Know Yourself

- Identifying, examining and understanding the information and how it is processed, stored, and transmitted
- Armed with this knowledge, one can initiate an in-depth risk management program
- Risk management is a process
  - Safeguards and controls that are devised and implemented are not install-and-forget devices

Know the Enemy

- Identifying, examining, and understanding the threats facing the organization's information assets
  - Must fully identify those threats that pose risks to the organization and the security of its information assets
- Risk management
  - The process of assessing the risks to an organization's information and determining how those risks can be controlled or mitigated

The roles of the communities of interest

Communities of interest must work together

- Information Security – leadership role in addressing risk

- Information Technology – role involves building and maintaining secure systems

- Management – role involves resource allocation and prioritization of security concerns

- Users – crucial role in (early) detection, and proper response to threats

Steps in Risk Management

- Evaluating the risk controls
- Determining which control options are cost-effective
- Acquiring or installing the appropriate controls
- Overseeing processes to ensure that the controls remain effective
- Identifying risks
- Assessing risks
- Summarizing the findings