

# 502049 – Introduction to Information Security

Faculty of Information Technology

Lecturer: Ngoc-Tu Huynh, *Ph.D*

# Information of the course

- Number of credits: 3 (3.0)

- This module covers the following topics:
  - Managing Security
  - Foundations of Computer Security
  - Identification and Authentication
  - Access Control
  - Database Security
  - Software Security
  - Cryptography
  - Key Establishment
  - Communications Security
  - Network Security

# Course Objectives

- **Knowledge:**
  - Express some of the key concepts around information security.
  - Relate knowledge areas to the discipline of information/cyber security.
- **Operational skills:**
  - Evaluate different perspectives on control of cryptography.
  - Gain an awareness of key information security principles regarding information, confidentiality, integrity and availability.
  - Be able to explain some of the key aspects of information risk and security management.

- **Late Policy**

- No late submission for assignment. Otherwise, it will be penalized or may not be graded.

- **Collaboration Policy**

- Students are encouraged to collaborate, particularly on the course project. But we will limit the team member to at most three students.

- **Cheating Policy**

- We will strictly follow the policy on cheating and plagiarism. Please avoid

# Learning Outcomes

- Understanding
  - Concepts and principles of Information security
- Remember
  - The key concepts: authentication, identification,
  - access control, encryption, key establishment,...
- Apply
  - Grant/revocation user access, encrypt /decryption information, authentication, manage network security

# Learning Outcomes

- Analyze
  - Risk/Threat may be encountered in Information security.
- Evaluate
  - Algorithms and security solutions for specific scenarios

Assessment	Grade
Assignments	20%
Attendance	10%
Presentation	20%
Final project	50%



# Textbook and references

## Textbook:

- [1] Dieter Gollmann, *Computer Security*, [2011], 3<sup>rd</sup> Edition, Wiley.

## References:

- [2] Merkow, M.S. and Breithaupt, J., [2014]. *Information security: Principles and practices*, 2nd Edition, Pearson Education.
- [3] William Stallings, Lawrie Brown, [2014], *Computer Security: Principles and Practice*, 3<sup>rd</sup> Edition, Pearson.
- [4] William Stallings, [2005], *Cryptography and Network Security: Principles and Practice*, 4<sup>th</sup> Edition, Prentice Hall.