

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)

Outline

- 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.

Course Policy

- **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

Assessments

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

Textbook and references

Textbook:

- [1] Dieter Gollmann, *Computer Security*, [2011], 3rd 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*, 3rd Edition, Pearson.
- [4] William Stallings, [2005], *Cryptography and Network Security: Principles and Practice*, 4th Edition, Prentice Hall.