

Course Syllabus

1. Program of Study	Bachelor of Science (Computer Science)
Faculty/Institute/College	Mahidol University International College
2. Course Code	ICCS 434
Course Title	Computer Security
3. Number of Credits	4 (Lecture/Lab) (4-0)
4. Prerequisite(s)	ICCS 365, ICCS 323, ICCS 411
5. Type of Course	Elective
6. Trimester / Academic Year	2 nd trimester / every academic year

7. Course Description

Security policy has to be implemented to prevent and protect against intruder. This course will give the student an understanding of the importance and how to implement security in organizations. Various security intrusion and protection mechanisms. Basic encryption and decryption. OS Security, database security, network security, physical protection, security risk analysis.

8. Course Objective(s)

After the completion of the course, students will

1. understand the concepts of data, network, and data security,
2. understand the impact on business when security is violated,
3. be able to apply the concepts to real world systems,
4. be able to overcome threats.

9. Course Outline

Week	Lecture	Hour	Instructor
1	Introduction to Computer security, security service, attacks and mechanisms.	4	Ms. Wilawal Malainual
2	Security Management Practice, Security Feasibility Studies, Security Policies.	4	
3	Cryptography Systems.	4	
4	PKI, Physical Security	4	
5	Midterm Examination	4	
6	Telecommunication and network security.	4	
7	System Security (Virus, Worm, Trojan horses, Intruders)	4	
8	Threats to TCP/IP service, DOS, DDOS	4	

9	Threats to TCP/IP service, DOS, DDOS (cont.)	4
10	Security Products (Firewall, IDS, Virus Protection)	4
11	Business Continuity Planning and Disaster, Recovery Planning, Security checklist	4
	Total	44

10. Teaching Method(s)

1. Lectures
2. Homeworks
3. Projects

11. Teaching Media

1. Textbooks
2. Lecture notes
3. Powerpoint presentations
4. Demonstrations

12. Measurement and evaluation of student achievement

Marks	Grade
81 or more	A
76 – 80	B+
71 – 75	B
66 – 70	C+
61 – 65	C
56 – 60	D+
51 – 55	D
50 or less	F

13. Course evaluation

Components	%
Homework	10
Midterm Exam	20
Project	20
Final Exam	50
Total	100

14. Reference(s)

1. W. Stallings, *Cryptography and Network Security*, Prentice Hall PTR, Upper Saddle River, NJ, 1998.
2. James E. Goldman, *Applied Data Communications : a business-oriented approach.*, John Wiley & Sons, Inc.

15. Instructor(s)

Ms. Wilawal Malainual

16. Course coordinator

Ms. Wilawal Malainual