

Syllabus

(Autumn 2002)

1. Course Title	Network Security
2. Course Number	ICE615
3. Professor	Kwangjo Kim
4. *Lec:Exp:Cre	3 : 0 : 3
5. Lecture Times	Tue., Thu. 11:00 ~ 12:30
6. Others	Tel. 042 - 866 - 6118, E-Mail : kkj@icu.ac.kr

Lec : Lecture(강의시수), Exp : Experiment(실험시수) Cre : Credit(학점)

TA : Wooseok Ham

7. Course Objectives

This course offers how to evaluate a variety of vulnerabilities over the existing network and how to construct security protocols and their applications by using crypto algorithms, digital signature and hash function to guarantee integrity of information and authentication of network entities. Moreover, every student can get the knowledge on a typical network authentication protocol like Kerberos, secure e-mailing system like PEM, X.400, S/MIME and PGP, emerging network security protocol like IPSEC and SET protocol and firewall.

8. Textbook

- 가. Required Textbook : Network Security : Private Communication in a Public World, C. Kaufmann, R. Perlman, M. Speciner, Prentice Hall, 2002, ISBN 0-13-046019-2, 2nd Ed.
- 나. Recommended Reading Material
- Cryptography – Theory and Practice, Dougals R. Stinson, CRC Press, ISBN 1-58488-206-9, 2002, 2nd Ed.
 - Cryptography and Network Security, William Stallings, Prentice Hall, ISBN 0-13-869017-0, 1998 2nd Ed.
 - Internet RFCs / Handout

9. Evaluation

Classification	Midterm Exam	Quiz	Final Exam	Home work	Term Project	Term Paper	Attendance	Total
Percentage	15%	5%	25%	15%	15%	20%	5%	100%

10. Course Schedule

Week	Contents	Remark
1 st week	Introduction & Security Requirement	
2 nd week	Digital Signature and Hash functions	TP Proposal #1
3 rd week	Basic Cryptographic Protocols	Homework#1
4 th week	Applied Cryptographic Protocols	
5 th week	Authentication System	Homework#2
6 th week	TP Contest #1	TP Report #2
7 th week	Mid-term Exam	
8 th week	Authentication Protocol	
9 th week	Kerberos	Homework#3
10 th week	E-mail Security I	
11 th week	E-mail Security II	Homework#4
12 th week	IPSEC	
13 th week	Web security / Firewall	Homework#5
14 th week	TP Contest #2	TP Paper
15 th week	Final Exam	

→Above 'Course Schedule' is supposed to be changed depending on circumstances.