Class Information

What?

- It's about network security
- Textbook:
  - ***Network Security: Private Communication in a Public World***, **2nd edition**, by Charlie Kaufman, et al
  - Does everybody have the book?
- Course Reserves at Science Library
- Reference Book:
  - ***Computer Security: Art and Science*** by Matt Bishop
- Web Page: www.cs.uoregon.edu/classes/03F/cis410netsec/

Prerequisites

- CIS 410/510 on Computer Security
  - Materials will be reviewed
- Or equivalent courses
  - Talk with Jun

Who?

- Instructor:
  - Jun Li: lijun@cs.uoregon.edu
  - Office: Deschutes 334

When?

- Class hours:
  - Tuesdays, Thursdays 2:00 - 3:20 p.m.
  - 202 Cascade
- Office hours:
  - Fridays 14:00 - 15:00
  - 334 Deschutes

410 Grading Policy

- Undergrads:
  - Class participation: 10%
  - In-class quiz: 10%
  - Class project: 25%
  - Midterm: 55%
  - (There is no Final)

510 Grading Policy

- Graduate students
  - Class participation: 10%
  - In-class quiz: 10%
  - Class project: 55%
  - Midterm: 25%
  - (There is no Final)

Quiz

- Quiz:
  - To check your learning quality
  - No announcement in advance
  - Often in 5 minutes

Midterm

- Will test your understanding of materials covered in class
- To get a good grade, understand the lecture notes!
  - Also use lecture notes as the guideline for reading the textbook and other materials
- Handling simple, real scenarios may be tested

Class Project

- 1-3 people per team
- Identify a security problem to solve by yourself
  - But talk to me before decided
  - Typically you should get your hands dirty
- Be ambitious:
  - A good work can be *publishable*
- Be down-to-earth
  - Make sure you make solid progress day by day

Project Report Contents

- A final report MUST contain:
  - Title
  - Author name
  - Introduction
    - Problem statement
    - Motivation
    - Prior work (if none or little, then say so)
    - Overview of your approach

  - Design
  - Implementation
  - Evaluation
    - Analysis
    - Measurement or simulation results
  - Conclusions
  - Acknowledgment
  - References

Project Report Format

- Email me in PDF format
  - Imagine you are publishing a paper
    - 5 pages on letter-sized paper, 1" margin on all sides, single space, 11 Times New Roman font
    - At most 5 graphs, each smaller than 3.5"x3.5"

How Would I Grade Projects?

- I'll consider the following factors:
  - Is the idea original?
  - Are your hands dirty?
  - Are in-class presentation and progress report well done?
    - A good project web page also helps
  - A well-presented final report
  - Positive attitude: proactive, constant interaction with me, lots of discussion

Class Weekly Schedule

- Week 1 (9/30, 10/2):Class syllabus; overview of network security (I)
  - **NO CLASS on THURSDAY**
- Week 2 (10/7, 10/9): Overview of network security (II)
- Week 3 (10/14, 10/16): Cryptography review
- Week 4 (10/21, 10/23): Kerberos and PKI
- Week 5 (10/28, 10/30): IPsec (AH, ESP, IKE)

(cont'd)

- Week 6 (11/4, 11/6): Web security(SSL/DDoS/etc.)
- Week 7 (11/11, 11/13) : Email security
- Week 8 (11/18, 11/20): **midterm** ; routing security
- Week 9 (11/25):   Firewall and VPN
- Week 10 (12/2, 12/4): Q&A (or a selected topic)

Important Schedules

- Midterm:
  - **Nov 18th, Tuesday, 2-3:20 p.m.**
  - Coverage: all materials covered up to Week 7
- Project
  - A 5-10 minutes presentation (10/14) (grads only)
  - A 2-page progress report (10/30)
  - A final report (12/11)

On using emails

- Subject line must be in the format of
  - **CIS 410: <issue>, or**
  - **CIS 510: <issue>**
- Otherwise may be ignored
  - Sorry I have many emails to handle every day