IS2150/TEL2810 Introduction to Security
Tentative Course Schedule

Week #	***Topic***	***Objective***: The students are expected to have the following capability after the lecture	***Testing***
Week 1 Aug 31	Introduction (Chapter 1)	• *Define/Describe/explain* some key security terms • *Describe/explain* the importance of trust, assurance and operational issues within the security area	• **Reading Assignment**
Week 2 Sept 7	Secure Design Principles; Access control in Unix and Windows	• *Explain* the secure design principles and its importance • *Recognize* the basic access control mechanism in OS • *Use* access control commands to *manipulate* permissions in the OS	• **Quiz 1**: (for Week 1) • **Lab 1** (2 Weeks) • **Homework 1** (2 Weeks)
Week 3 Sep 14	Mathematical Review; Security Policy	• *Write* a sentence in logic form and *interpret* the logic expressions • *Solve* problems using mathematical induction • *Interpret, analyze and construct* lattice structures	• **Quiz 2** (for Week 2) • **Reading Assignment**
Week 4 Sep 21	HRU Access Control Matrix -	• *Represent/Describe* formally the safety problem using ACM • *Reason* and *Demonstrate* the undecidability result related to security	• **Homework 2** (2 Weeks)
Week 5 Sep 28	Confidentiality, Integrity, Hybrid Policy Models Privacy	• *Explain* the confidentiality, integrity and hybrid policy models and *relate* them to application needs • *Employ* them to new applications and synthesize solution • *Understand/Explain* general privacy issues	• **Quiz 3**: (for Week 4) • **Lab 2** (Due: After October Break) • **Homework 3** (2 Weeks)
Week 6 Oct 5			
Oct 12	**October Break (no Tuesday classes)**		
Week 8 Oct 19	Basics of Cryptography Overview of Java Cryto features	• *Recognize/explain* and use the basic cryptographic techniques • *Understand and use* Java Cryptographic extensions	• **Review for midterm**

Homeworks/Labs are due by the end of the due date, i.e., by 11:59PM

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Week 9 Oct 26	**Midterm**	**Programming Project/Assignment** Java programming Assignment (Due: Dec 7)	
Week 10 Nov 2	Network Security; Authentication and Identity	• *Explain* and *employ* the basic network security (e.g., authentication) techniques	• **Homework 4 (Crypto/NetSec)** (2 Week) • **Lab 3** (firewall) given out in start of week 10 (Due: Nov 16)
Week 11 Nov 9	Security Evaluation, Risk Management, Legal and Ethical Issues	• *Explain* the main idea behind common criteria • *Recognize* the importance of risk management process and *employ* it to *assess* and *solve* organizational security • *Recognize*, *define/explain* legal and ethical concerns related to security	• **Reading Assignment**
Week 12 Nov 16	Malicious Code, Software security	• *Recognize*, *compare*/*contrast*, *explain* different types of malicious code • *Recognize*, *compare*/*contrast*, *explain* different types of coding related software issues	• **Quiz 4** (for Week 11) • **Lab 4** (Before Final)
Week 13 Nov 23	Vulnerability Analysis;	• *Recognize*, *classify* and *compare* vulnerability (taxonomy/classification)	
Week 14 Nov 30	IDS; Auditing; Firewalls Misc	• *Recognize*, *explain* and *analyze* auditing/IDS/Auditing systems	• **Quiz 5** (for Week 12, 13)
Week 15 Dec 7	Misc/Review/Project demos		
Dec 14	**Final**		