

## Planned Syllabus

#	date	topic	reading <sup>a</sup> and notes
1.	Mon, Jan 6	Introduction; what is computer security	§1
2.	Wed, Jan 8	Introduction ( <i>con't</i> ); principles of secure design	§1, §13
3.	Fri, Jan 10	Penetration analysis	§23.1–23.2
	Fri, Jan 10	<i>Discussion</i> : class project	
4.	Mon, Jan 13	Vulnerability models	§23.3–23.4
5.	Wed, Jan 15	Security in programming	§29 <b>homework 1 due</b>
6.	Fri, Jan 17	Robust programming	§handout
	Fri, Jan 17	<i>Discussion</i> : security in programming	
	Mon, Jan 20	<b>no class</b> (Martin Luther King Day)	
7.	Wed, Jan 22	Access control matrix, HRU result	§2, 3.1–3.2 <b>project selection due</b>
8.	Fri, Jan 24	Policies and policy languages	§4.1–4.5
	Fri, Jan 24	<i>Discussion</i> : <b>none</b> (virtual Monday)	
9.	Mon, Jan 27	Confidentiality, Bell-LaPadula	§30,5.1–5.2.2.2
10.	Wed, Jan 29	Integrity: Biba, Clark-Wilson	§6.1–6.2,6.4 <b>homework 2 due</b>
11.	Fri, Jan 31	Hybrids: Chinese Wall, ORCON, RBAC	§7.1,7.3–7.4
	Fri, Jan 31	<i>Discussion</i> : modular arithmetic, Euclidean algorithm	§31
12.	Mon, Feb. 3	Classical cryptography	§9.1–9.2.4
13.	Wed, Feb. 5	Public key cryptography, cryptographic hash functions	§9.3–9.4 <b>project design due</b>
14.	Fri, Feb 7	Key management, certificates	§10.1–10.2,10.4,10.6
	Fri, Feb 7	<i>Discussion</i> : review for midterm	
15.	Mon, Feb 10	Applications and examples of ciphers	§11.1–11.3, 11.4.2 <b>homework 3 due</b>
16.	Wed, Feb 12	<b>midterm</b>	
17.	Fri, Feb 14	Authentication and identity	§12,14.1–14.4,14.6
	Fri, Feb 14	<i>Discussion</i> : Review of midterm	
	Mon, Feb 17	<b>no class</b> (Presidents' Day)	
18.	Wed, Feb 19	Access control: ACLs, C-Lists, Locks and Keys	§15.1–15.4
19.	Fri, Feb 21	Confinement Problem: Sandbox, Virtual Machine	§17.1–17.2
	Fri, Feb 21	<i>Discussion</i> : <i>to be arranged</i>	
20.	Mon, Feb 24	Basics of Assurance	§18 <b>homework 4 due</b>
21.	Wed, Feb 26	Evaluation of systems	§21.1–21.2,21.7,21.8
22.	Fri, Feb 28	Malicious logic: Trojan horses, computer viruses	§22.1–22.5
	Fri, Feb 28	<i>Discussion</i> : Examples of computer viruses	

#	date	topic	reading <sup>a</sup> and notes
23.	Mon, Mar 3	Malicious logic: defenses	§22.7
24.	Wed, Mar 5	Auditing	§24.1–24.4
25.	Fri, Mar 7	Intrusion detection	§25.1–23.4,25.6
	Fri, Mar 7	<i>Discussion: to be arranged</i>	
26.	Mon, Mar 10	Network security	§26 <i>homework 5 due</i>
27.	Wed, Mar 12	<i>to be arranged</i>	
28.	Fri, Mar 14	<i>to be arranged</i>	<i>project due</i>
	Wed, Mar 19	<i>final exam, both sections</i>	1:30PM to 3:30PM

a. Unless otherwise noted, all readings are from the text.

This syllabus is *tentative* and subject to change as needed. If there is a topic you want to hear about and it is in the syllabus, please let me know. I won't promise to cover it, but I may ....