

**This schedule is tentative.**

Unit	Week #	Date range	Agenda	Note
Applied Cryptography	Week 1	Jan 6-10	<ul style="list-style-type: none"> <li>• Overview, Hash function constructions</li> <li>• Hash application (password authentication)</li> <li>• Entropy &amp; extraction, Pseudorandom generators</li> </ul>	
	Week 2	Jan 13-17	<ul style="list-style-type: none"> <li>• One-Time Pad / Stream Ciphers</li> <li>• Block Ciphers and modes of operations</li> </ul>	
	Week 3	Jan 20-24	<ul style="list-style-type: none"> <li>• MACs</li> <li>• Authenticated encryption</li> </ul>	Quiz1 (Jan20)
	Week 4	Jan 27-31	<ul style="list-style-type: none"> <li>• Number theory</li> <li>• Diffie-Hellman / Elgamal, public key</li> <li>• Digital signature</li> </ul>	
OS Security	Week 5	Feb 3-7	<ul style="list-style-type: none"> <li>• Access control matrix</li> <li>• Access control list and capabilities</li> <li>• SUID</li> </ul>	Quiz2 (Feb5) Assignment1 release
	Week 6	Feb 10-14	<ul style="list-style-type: none"> <li>• Confidentiality policy</li> <li>• Integrity policy</li> <li>• Hybrid policy</li> <li>• Chinese wall</li> </ul>	Assignment1 due (Feb 10) Assignment2 release
	Week 8	Feb 17-21	Winter reading week	Assignment2 due (Feb 17)
Software and web security	Week 9	Feb 24-Feb28	<ul style="list-style-type: none"> <li>• Architecture</li> <li>• Buffer overflow</li> <li>• Format string</li> </ul>	Assignment3 release
	Week 10	Mar 3 -7	<ul style="list-style-type: none"> <li>• Malicious logics and countermeasures</li> <li>• SQL injection</li> </ul>	First exam (Mar 3) Assignment4 release
	Week 11	Mar 10-14	<ul style="list-style-type: none"> <li>• Secure web application (cross-site scripting)</li> <li>• Cookies</li> </ul>	Assignment3 due (Mar10) Quiz3 (Mar12)
Threat detection and investigation	Week 12	Mar 17-21	<ul style="list-style-type: none"> <li>• Intrusion detection</li> <li>• Evading IDS</li> <li>• Provenance auditing</li> </ul>	Assignment4 due (Mar 19)
Network Security	Week 13	Mar 24-28	<ul style="list-style-type: none"> <li>• Security of different network layers</li> <li>• Confidentiality/anonymity on the Internet</li> </ul>	
	Week 14	Mar 31-Apr 4	TBD	Assignment5 due (Mar31) Second Exam (Date determined by faculty)