

Syllabus (IST 451)

Note: Tentative (The syllabus might be adjusted based on students' performance)

Date	Topic
Jan 10	Course logistics and introduction
Jan 12	Cryptography (encryption)
Jan 17	Cryptograph (MAC, Hash)
Jan 19	Passwords, security questions, challenge-response, biometrics, password authentication, phishing
Jan 24	Cross-site request forgery, SQL injection, cross-site scripting
Jan 26	Cross-site request forgery, cross-site scripting
Jan 31	SQL injection, clickjacking
Feb 2	Online tracking
Feb 7	System security (computer architecture)
Feb 9	C program
Feb 14	Lab
Feb 16	C program
Feb 21	Lab
Feb 23	Midterm
Feb 28	Memory corruption attacks (stack overflow)
Mar 2	Lab
Mar 14	Memory corruption attacks (heap overflow)
Mar 16	Lab
Mar 21	Memory corruption attacks (integer overflow)
Mar 23	Lab
Mar 28	Use-after-free
Apr 4	Lab
Apr 6	Defenses against memory attacks
Apr 11	Binary code reverse engineering
Apr 13	Viruses, rootkits and spam

Apr 18	Anonymity networks
Apr 20	Botnet, Denial of service
Apr 25	Review
Apr 27	Final