

## BIL 562 NETWORK SECURITY SYLLABUS (TENTATIVE)

**Instructor:** Assist. Prof. Dr. Huseyin Polat, polath@anadolu.edu.tr

**Teaching Assistant:** Cihan Kaleli, ckaleli@anadolu.edu.tr

**Meeting Times & The Venue:** Tuesday @ 14:00-17:00, B6

**Text:** Suggested but not required: Network Security Private Communication in a Public World, 2nd Edition, C. Kaufman, R. Perlman, and M. Speciner.

Additional Text: Cryptography and Network Security Principles and Practices, W. Stallings

**Topics Covered:** Introduction, Legal and Ethical Issues, Threats and Controls, Traditional Ciphers, Public Key Cryptography: RSA, DH, DSS, Secret Key Cryptography: DES, 3DES, AES, Hash and Message Digest, Secure Electronic Mail: PGP, Homomorphic Encryption, Oblivious Transfer Protocol, Digital Passwords, Digital Signatures.

**Assessment Process:**

**1st Midterm:** 15%

**2nd Midterm:** 15%

**Quizzes & Homework:** 15%

**Weekly Assignments & Term Project:** 25%

**Final:** 30%

**Each student must prepare a term project and hand in by due date.**

**Each student must submit weekly assignments by due date every week. One randomly selected student will present his/her assignment in the class.**

**Attendance:** Students are expected to attend classes.

**Honor Policy:** Every student is expected to work alone unless explicitly mentioned. Each student is expected to behave ethically and honor every course requirement and policy: **do not cheat, plagiarize, or commit fraud.** Any student who fails to abide by the honor policy will **fail** the course and standard **faculty honor policy** will be applied (**3 to 6-month suspension**).

**Late Policy:** Overdue works will **not** be accepted.

**Format for your work:** You should type, spell-check, well-format, and staple your work.

**Weekly Assignments Schedule:** **Each student must study the given subject, prepare a report, and hand in by due date.**

Due Date	Subject
2PM, Tuesday, October 5, 2010	Cyber security attacks
2PM, Tuesday, October 12, 2010	Patents, copyrights, and trade secrets
2PM, Tuesday, October 19, 2010	Security and privacy issues in social networks such as facebook and twitter
2PM, Tuesday, October 26, 2010	Digital security certificates and one-time password (OTP)
<b>1st Midterm</b>	
2PM, Tuesday, Nov. 9, 2010	Cryptanalysis
<b>No Classes</b>	
2PM, Tuesday, Nov. 23, 2010	Digital signatures
2PM, Tuesday, Nov. 30, 2010	Symmetric and asymmetric key algorithms
2PM, Tuesday, Dec. 7, 2010	Homomorphic encryption & 1-out- $n$ OT
<b>2nd Midterm</b>	
2PM, Tuesday, Dec. 21, 2010	Hash functions and the hash function Hamsi
2PM, Tuesday, Dec. 28, 2010	DoS and DDoS
2PM, Tuesday, January 4, 2011	Kerberos
2PM, Tuesday, January 11, 2011	<b>Term Project</b>
<b>Final</b>	