

Network Security

Breno de Medeiros

Florida State University

FLORIDA STATE
UNIVERSITY

Breno de Medeiros -- Fall 2004

Syllabus and Contact Info

- http://www.cs.fsu.edu/~breno/CIS-5357/network_security.html
- Instructor Pointer:
 - Breno de Medeiros
 - 105-D James Love Bldg
 - 850-645-2356
 - breno@cs.fsu.edu
- Office hours: Wed./Fri. 9:00--11:00am,
or by appointment

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Policies

- FSU Academic code strictly enforced.
- No make-up mid-term.
- No homework deadline extensions, except with documented illness/impairment.

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Books

- Textbook:
 - Kaufman, Perlman and Speciner. Network Security: Private Communication in a Public World.
- Recommended book:
 - Stevens. TCP/IP Illustrated, vol. 1, the protocols.

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Evaluation Criteria

- Programming assignments: 40% of final grade (15 + 20)
- Midterm, Final Exams: 30% (15 + 15)
- Term paper/project + presentation: 30%

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Grading Curve

- 91 -100: A
- 89, 90: A-
- 75 - 88: B
- 65 - 74: C
- 58 - 64: D
- 0 - 57: F
- +/- Modifiers to grades B, C will be given under my discretion after all grades are in. These will be applied uniformly, as the letter grades.

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Course Overview p. 1

- Introduction to network security
 - Secure network services
 - Attacks
- Secure channels/network layers
 - Introduction to cryptography
 - Authentication
 - Cryptographic Protocols
 - Strong authentication, key exchange

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Course Overview p. 2

- Analysis of protocols
- Standards
 - SSL/TLS, SSH, IPSEC
 - Kerberos, S/Key
- Public Key Infrastructures
 - PKI: X.509
 - PGP

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Course Overview p. 3

- Packet filtering/Firewalls
- Traffic monitoring and intrusion detection
- Routing protocols
- Distributed Denial of Service attacks
- Network forensics/ vulnerability assessment

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Course Overview p. 4

- Web security
 - Java, cookies, HTTP/HTTPS
 - Web objects
- DNS security
- Smartcards/Biometrics
- Privacy
- Wireless security

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