

Network Security

Breno de Medeiros

Florida State University

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Course Ref Sheets p. 1

- [cshome]/~breno/teaching/net_sec.html
- Instructor Pointer:
 - Breno de Medeiros
 - 105-D James Love Bldg
 - 850-645-2356
 - breno@cs.fsu.edu
- Office hours: After class 1:45-3:00pm
Tue/Thu, or by appointment

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Course Ref Sheets p. 2

Policies:

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

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Course Ref Sheets p. 3

Textbook:

- Kaufman, Perlman and Speciner.
 - Network Security: Private Communication in a Public World.
- Resources:
 - Java Networking Tutorial:
<http://java.sun.com/docs/books/tutorial/networking>

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Evaluation Criteria

- Programming assignments: 25-30% of final grade (15 + 20)
- Midterm, Final Exams: 35% (15 + 20)
- Term paper/project + presentation: 30%
- Class participation: 5%
 - Submitted homework/paper will be tested automatically to detect plagiarism.

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Grading Curve

- 90 -100: A
- 75 - 89: B
- 65 - 74: C
- 58 - 64: D
- 0 - 57: F
- +/- Modifiers to the grade 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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