



Course Information:

Course # - Course Title: NWIT173 – Network Security

Course Format: Lectures, discussions, weekly labs, team exercises

Class Day/Time:

Semester Period:

Location:

Instructor Contact Information:

Name:

Email:

Physical Office Hours:

Virtual Office Hours:

Montgomery College Course Description:

An in-depth review of systems security, access control, network infrastructure, assessments and audits, cryptography and organizational security across both private and public enterprises. Real-world scenarios reinforce material covered. This course will help prepare students for the CompTIA Security+ certification exam. (CE).

Specific topic coverage includes:

- Access Control & Identity Management
- Cryptography
- Policies, Procedures, & Awareness
- Physical Security
- Perimeter Defenses
- Network Defenses
- Host Defenses
- Application Defenses
- Data Defenses
- Assessments and Audits

Common Course Student Learning Outcomes

Upon the completion of this course, students will be able to:

- Describe attacks and malicious code, IP fragmentation attacks, spoofing, man in the middle and TCP session hijacking.
- Describe authentication and explain password issues, Kerberos assumptions, challenge handshake authentication protocol, security tokens and biometrics.
- Describe directory and file transfer services, LDAP security issues and vulnerabilities.
- Describe remote access, IEEE 802.1x, telnet, virtual private networks and telecommunication vulnerabilities.
- Describe securing email and encryption, email vulnerabilities and differences between PGP and S/MIME.
- Describe security ramifications, technology weaknesses, configuration weaknesses, policy weaknesses and human errors.
- Describe security threats, integrity, confidentiality and availability in security information.
- Describe Web security, SSL and TLS, HTTPS vulnerabilities, JavaScript, ActiveX, and buffer overflows.

Common Course Student Learning Outcomes (cont)

- Describe wireless and instant messaging, applet soup of 802.11, 80211a, all the way till 802.11j.
- Identify firewalls, drafting a security policy, designing the firewall to implement the policy, how routers and switches work in wireless and network security.

Required Materials:

Textbook: Security Pro.ISBN: 978-1-935080-44-2.

Lab Manual: NA. The instructor will provide instructions for weekly hands-on.

Lab Use: Yes

MC Bookstore: <http://www.montgomerycollege.edu/bookstore>

Evaluation:

Weekly Hands-On Labs.....	20 Points
Hands-On Quizzes	40 Points
Exams.....	40 Points
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Total Available Points	100 Points

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