**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

**SPRING 2010**

## GENERAL COURSE INFORMATION

Course Number: NTWK 1083

Course Title: Information Assurance

Credit Hours: 5

# Prerequisites: None

Division/Discipline: Technical Education/WTCE

Course Description: This course serves as an introduction to employing measures intended to protect and defend information systems by ensuring their availability, integrity, authentication, and confidentiality. Students will understand and be able to initiate procedures and technologies that assist in the protection of data systems to keep them secure.

### CLASSROOM POLICY

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

The College reserves the right to suspend a student for conduct that is detrimental to the College's educational endeavors as outlined in the College catalog.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. Learn the rules of, and avoid instances of, intentional or unintentional plagiarism.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

#### COURSE AS VIEWED IN TOTAL CURRICULUM

This course prepares students to operate a secure network environment which encompasses protection measures for computers, processors, devices, or operating environment configured to store, process, access, or transmit data. The course addresses regulatory and technical requirements for providing secure means of communication within a military operational environment. Hands-on experiences with systems are provided. Understanding information assurance will be invaluable to any student currently employed or planning a career in information technology.

##### ASSESSMENT OF STUDENT LEARNING/OUTCOMES

Barton Community College assesses student learning at several levels:  institutional, program, degree, and classroom. The goal of these assessment activities is to improve student learning.  As a student in this course, you will participate in various assessment activities.  Results of these activities will be used to improve the content and delivery of Barton’s instructional program.

Course Outcomes

1. Develop information assurance monitoring
2. Understand Cisco security monitoring, analysis and response system
3. Maintain Cisco adaptive security
4. Operate Cisco intrusion prevention system
5. Configure and manage Cisco security devices
6. Initiate vulnerability remediation

##### COURSE COMPETENCIES

1. Setup and monitor a telecommunications network session
2. Setup and monitor a secure shell session
3. Switch a monitoring port
4. Switch port security
5. Understand Media Access Control (MAC) spoofing
6. Monitor access control lists
7. Monitor video teletype access control
8. Monitor simple network management protocol
9. Send traffic to Cisco System Monitoring Analysis Response System (CS-MARS)
10. Add devices to CS-MARS database
11. Implement device auto discovery and scheduling
12. Prepare queries and reports
13. Explain inspection and drop rules
14. Enable management services
15. Establish port and group objects
16. Utilize access control lists and class inspection
17. Setup adaptive security device manager
18. Establish, direct and add traffic to the Internet Protocol Services (IPS)
19. Operate Transmission Control Packet (TCP)
20. Program the eye retina scanner
21. Process retina setup
22. Create an address, port, and audit group
23. Generate a remediation report
24. Create an executive and summary Report
25. Setup Hercules
26. Determine Device Group Preferences
27. Create User Accounts
28. Run and import a scan
29. Install client software
30. Review vulnerabilities
31. Create, schedule, and export a policy

#### INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS

#### TEXTBOOKS AND OTHER REQUIRED MATERIALS

##### REFERENCES

##### METHODS OF EVALUATION

#### ATTENDANCE AND REQUIREMENTS

##### COURSE OUTLINE