

## Course Outcomes Guide

**Course Title: CYB 225 Tactical Perimeter Defense**

**Course Instructor(s): Tatyana Zidarov**

**Programs: AAS Cyber Security, AS Cyber Security**

### **Expected Learning Outcomes**

- Think critically
- Review and practice computer and network etiquette and ethics found in working environments
- Administer a network infrastructure
- Troubleshoot problems in an existing network environment
- Evaluate and implement new and future technologies into current system
- Install, configure, use and manage network defensive software on a network
- Evaluate best practices in security concepts to maintain confidentiality, integrity and availability of computer systems
- Design a network defense strategy that utilizes the “Defense in Depth” practices.
- Strategically place and configure network hardware: routers, firewalls, intrusion detection systems and intrusion prevention systems to maximize network security.

**Assessment** (How do students demonstrate achievement of these outcomes?)

Satisfactory scores on exams and projects.

Satisfactory scores on exams modeled after CyberWatch model curriculum..

Successful completion of labs utilizing firewalls, routers, virtual private networks and intrusion detection systems

Given a scenario of a network system identify vulnerabilities and recommend mitigating these vulnerabilities.

## Course Outcomes Guide

### **Validation** (What methods are used to validate your assessment?)

1. Approval of Information Systems Technology Advisory Council
2. Tests/labs comparable to Industry Standard Certification Exams (Security Certified Professional).
3. Faculty Review
4. CyberWatch model curriculum

### **Results** (What do the data show?) N/A (New course)

Since the 2012 fall semester a total of 54 students have taken CYB225 Tactical Perimeter Defense.

47 (89%) of the students completed the course and 45 (87%) were successful.

The grade distribution is as follows:

A	33	61%
B	9	17%
C	3	6%
D	1	2%
F	4	7%

There was 1 audit, 1 incomplete and 2 withdrew from the course.

### **Results** (What do the data show?) N/A (new course)

87% of students completing course requirements successfully complete coursework

### **Follow-up** (How have you used the data to improve student learning?)

New set of network defense labs were downloaded from NDG. These labs replaced the custom built labs which were extremely problematic and did not work as stated. These new labs will be reviewed and worked into the curriculum.

New textbook was also introduced. This will also be worked into the curriculum

### **Budget Justification**

(What resources are necessary to improve student learning?)

PC lab, projection unit, printer

Netlabs system

Course Management software (Moodle)

Hardware from Cisco lab that includes routers/switches/firewalls is available for student use.