

Hagerstown Community College
OFFICIAL MASTER SYLLABUS DOCUMENT

COURSE: CYB-225, Tactical Perimeter Defense: 3 credits

INSTRUCTOR:

SEMESTER/YEAR: Spring 2018

COURSE DESCRIPTION: This course places the student on systems where critical defensive technologies need be employed to secure network perimeters. The student will need understand and apply an understanding of network security threats and goals, advanced TCP/IP concepts, router security, intrusion detection, firewall design and implementation as well as wireless design and security. Prerequisite: IST 154

TEXTBOOK:

Network Security, Firewalls, and VPNs, 2 nd edition	J. Michael Stewart	2e	Print Bundle Print Text + Virtual Lab Access/eLab Manual ISBN: 978-1-284-15968-4 eBundle eBook Rental + Virtual Lab Access/eLab Manual	Jones and Bartlett
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STUDENT LEARNING OUTCOMES: STUDENT LEARNING OUTCOMES:

- Think critically
- Communicate effectively with both verbal and written forms
- Review and practice computer and network etiquette and ethics found in working environments
- Administer a network infrastructure illustrating the ability to enumerate and identify network components
- 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 with appropriate network security techniques and components
- 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 by layering of security mechanisms to achieve desired security.
- Strategically place and configure network hardware: routers, firewalls, intrusion detection systems and intrusion prevention systems to maximize network security

TOTAL HOURS OF COURSEWORK:

To earn one academic credit at HCC, students are required to complete a minimum of 37.5 clock hours (45 fifty-minute “academic” hours) of coursework per semester. Those hours of coursework may be completed through a combination of hours within the classroom and hours outside the classroom. Certain courses may require more than the 37.5 minimum hours of coursework per credit. For most classes, students should expect to do at least 2 hours of coursework outside of class for each hour of in-class coursework.

	Direct Faculty Instruction (in-Class)	Student work outside of class
Chapter reading assignments		20 h
9 quizzes	9 h (Moodle Quizzes)	20 h (quiz prep)
Comprehensive Final Exam (13 chapters)	2 h (Testing Center)	20+ h Final exam prep (review notes/group study)
Assignments (online)		15+ h
“Lab” time		25 h (10 labs)
Weekly discussions		15 h
Total Lecture and Lab	11 h	115 h
TOTAL	126+ hours (may exceed minimum of 112.5 h for 3 credits)	

Services for Students with Disabilities: Students may receive reasonable accommodations if they have a diagnosed disability and present appropriate documentation. Students seeking accommodations are required to contact the Disability Support Services (DSS) office as early as possible. Students may contact a DSS staff member for an appointment at dss@hagerstowncc.edu or at 240-500-2530.