

Hagerstown Community College
OFFICIAL MASTER SYLLABUS DOCUMENT

COURSE: IST 254 Network Design and Defense, 3 credits

INSTRUCTOR: Stephen Shank

SEMESTER/YEAR: Fall 2013

COURSE DESCRIPTION: Network Design and Defense along with IST 269 serve as the capstone courses for the Networking Program at Hagerstown Community College. The course solidifies concepts presented in earlier coursework by reinforcing how networks function and then applying these concepts to create business solutions and network security. Units include: concepts review, network attacks, footprinting, port scanning, enumeration, OS vulnerabilities, Web servers, wireless networks, cryptography and protecting networks. Case studies are included in the course discussion. Prerequisite: IST 253 or consent of TCS Division. Semesters offered: Fall/Spring Semester.

TEXTBOOKS:

Strategic Infrastructure Security, Randy Weaver, Cengage, 2009. ISBN: 978-1-4188-3661-0
Disaster recovery, EC Council, Cengage, ISBN: 978-1-4354-8870-0

STUDENT LEARNING OUTCOMES:

1. Given a scenario of a network environment the student will be able to perform a risk analysis of that network system.
2. The student will be able to design a secure network using techniques of intrusion detection, virtual private networks and firewalls.

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.