Hagerstown Community College Master Syllabus
IST-155-A01, Networking I

Course Information

IST-155-A01, Networking I
4 Credits
19/SP

Instructor Information

Course Description

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers in conjunction with the Cisco Networking Academy. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Introductory router/switch device configuration skills are also included. Students must have a personal computer and Internet access to complete online assignments and exams. Class also meets at least one Saturday per session per the instructor's discretion. Laboratory fee required

Textbook and Course Materials

No Textbook

Student Learning Outcomes

- Create a physical layer network infrastructure including selection of appropriate media (wired or wireless), media termination, installation of vertical and horizontal cabling, and proper termination/documentation.
- Develop a logical network infrastructure using the OSI and TCP/IP models to implement appropriate layer protocols including TCP/IP with classless addressing and subnets.
- Use a command line interface (CLI) to configure a managed router or switch.

Definition of Credit Hour: Classroom Courses

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 in 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 complete at least 2 hours of coursework outside of class for each hour of in-class coursework.

Classwork type	Direct Faculty Instruction In-class **37.5 hours required**		Student Work Out of Classroom **75 hours required**
In-class "lecture"	36 h		
Reading chapters			48 h
Practice quizzes			6 h

Classwork type	Direct Faculty Instruction In-class **37.5 hours required**		Student Work Out of Classroom **75 hours required**
Test/activity for each chapter			26 h prep and completion
Research project (case study)			10 h
Chapter assignments and webinars			14 h
Final exam prep (cumulative and skills)			10 h
Total	**36 hours**		**114 hours**

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.