

Hagerstown Community College
OFFICIAL MASTER SYLLABUS DOCUMENT

COURSE: IST-155-A01 Networking I, 4 Credits

INSTRUCTOR:

SEMESTER/YEAR: 18/SP

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:

Introduction to Networks Lab Manual v5.1; Cisco Press; ISBN: 9781587133121

Optional Reading: Introduction to Networks Companion Guide; Cisco Press; ISBN: 9781587133602

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.

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 36 h required	Student Work Out of Classroom 114 h required
In-class “lecture”	36 h	
Reading chapters		48 h

Practice quizzes		6 h
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 Hours	36 h	114 h

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.