

Basic Course Information

Semester:	FA22	Instructor Name:	Bijan Houshiar
Course Title & #:	CIS 162 - COMPUTER NETWORK FUNDAMENTALS	Email:	Bijan.houshiar@imperial.edu
CRN #:	10	Webpage (optional):	Cisco.netacad.com
Classroom:	Online	Office #:	Zoom
Class Dates:	8/15/2022-12/10/2022	Office Hours:	by appointment
Class Days:		Office Phone #:	
Class Times:		Emergency Contact:	
Units:	3	Class Format:	Online asynchronous

Course Description

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine nature and roles of protocols and services at the application, network, data link, and physical layers. Course is preparation for CISCO certification.(C-ID: ITIS 150) (CSU)

Course Prerequisite(s) and/or Corequisite(s)

None

Student Learning Outcomes

Describe and differentiate the devices and services used to support communications.

Describe the role of protocol layers in data networks.

Evaluate the importance of IPv4 and IPv6 addressing.

Design, calculate, and apply subnet masks and addresses in IPv4 and IPv6 networks.

Explain fundamental Ethernet concepts such as media, services, and operations.

Build a simple Ethernet network using routers and switches.

Use Cisco command-line interface (CLI) commands for basic router and switch configurations.

Course Objectives

This course objective is to become familiar with OSI and TCP/IP communication models.



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Textbooks & Other Resources or Links

Students will be enrolled in <https://www.netacad.com/> which has the textbook online. This online book will be available for the entire term. Students are not required to purchase textbooks.

Course Requirements and Instructional Methods

To use course materials outside class/lab Internet access and a Windows computer are required.

Course Grading Based on Course Objectives

Labs & Hands-On Quizzes and Homework	90 points
Chapter Exams	60 points
Hands-On Skills- Final Exam	100 Points
Final Exam	100 Points
Discussion	Up to 50 Points

Grades:

A = 90 - 100 %

B = 80 - 89 %

C = 70 - 79 %

D = 60 - 69 %

F = below 60%

Course Policies

There will 25% deduction for one week late. Assignments passed due by more than one week will not be accepted. Instructor may revise if there is a proper documentation.

No late work will be accepted after term ends. Discussion has no makeup.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

Weekly agenda and due dates are listed on college course Canvas.