

Syllabus

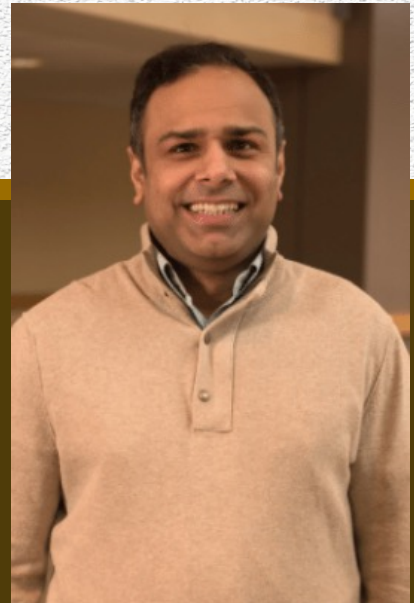
SPRING
2022

NETWORKS MANAGEMENT

CPET 28100

NETWORKS I

ITC 33100



INSTRUCTOR
Athar Safdar

Course Information

Title: CPET281 Network Management - ITC331 Network 1

Credit Hours: 3

Prerequisites: CPET 181 or equivalent

Day/Time: Fully online

Course Site: <http://purdue.brightspace.com>

First week of Class: TBD

INSTRUCTOR INFORMATION

Name: Athar Safdar

Email Address: safdara@pfw.edu

Office Location: School of Polytechnic, 205-C

Phone: (260) 481-6339

Physical Office Hours: Mon: 2pm - 4:30pm

Tues: 2pm - 3pm

Wed: 2pm - 4:30pm

Virtual Office Hours: By Appointment

Virtual meeting link: <https://purdue.webex.com/meet/asafdar>



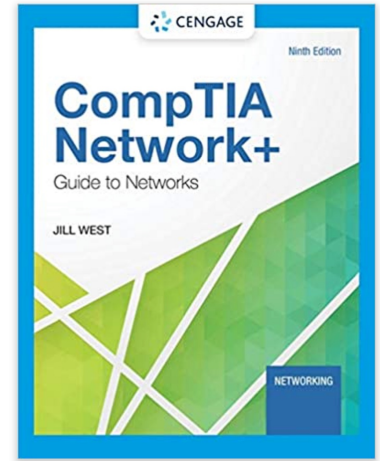
Need Help?

I will be available during my office hours and by appointment to help you with any questions about the class. I will answer emails within 24 hours of receiving them except on weekends.

REQUIRED MATERIALS

Textbook: West - Bundle: CompTIA Network+ Guide to Networks, Loose-leaf Version, 9th Edition MindTap Author: West, Publisher: Cengage Learning. ISBN 9780357616130

Cengage Technical Support Link:
For Issues with MindTap and Labs (which are a key part of the course), please click on this [“Cengage Technical Support Link”](#).



WHAT YOU WILL LEARN IN THIS COURSE

This course provides in-depth coverage of the most important concepts in contemporary networking including:

- TCP/IP, Ethernet
- wireless transmission
- virtual networks
- cloud computing
- segmentation
- security
- performance optimization
- vendor-neutral networking
- troubleshooting



After reading the modules and completing the exercises successfully, you will:

- be prepared to select the network design, hardware, and software that best fit your environment
- have the skills to build a network from scratch and maintain, upgrade, troubleshoot, and manage an existing network
- be well-prepared to take CompTIA's Network+ N10-008 certification exam.



HOW THIS COURSE WILL BE TAUGHT

Brightspace will be the primary platform for teaching this course. The course is divided into eight modules. Each module contains: (1) a module overview page, (2) learning material, and (3) an assessment section.

1

Module overview

includes the learning objectives of the week and the assessments that you will have to complete each week



2

Learning material

contains videos and PowerPoint slides. You are expected to watch the videos because they cover the material for the week. You could also download the slides and take notes while you are watching the videos.

3

Assessment

contains the MindTap labs that are in your textbook. Labs in this course help you to apply what you have learned about computer networking. Although some modern networking components can be expensive, the projects aim to use widely available and moderately priced hardware and software.

MORE ON ASSESSMENTS

These labs will be completed by a team/group of 4 to 5 students. Each team will turn in one submission through Brightspace. There will be two types of discussions spaces in Brightspace:

- **Group discussion**

it is a space for your team to collaborate. Students are expected to collaborate fully on Labs Assignments. You are also welcome to use other platforms such as Teams, Google,... for group collaboration to work on the labs. Group names are currently created using letters A, B, C... You are expected to come up with your group name and I will update it in Brightspace. Be creative. :)

- **Classroom discussion**

second, there will be a class-level discussion, where you will post your group answers. You are expected to actively participate in the class-level groups as well. I will actively engage in the class-level discussion spaces - if it helps our learning experience (but I will not respond to each and every comment)

Peer Evaluation

As part of your group lab work, you will rate your peers' participation in the group work. This will allow you to learn from each other and build a community of learners.

We will have three peer evaluations. The first one will not count towards your grade. We will use the software Teammates.



GRADING

Grade Breakdown

Assessments	Points
Team lab submissions	50%
Peer Review	20%
Midterm	15%
Final Exam	15%
Total	100%

Grade Cutoffs

Percentage	Letter
>90%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
<59.5%	F

TENTATIVE COURSE SCHEDULE

Weeks	Topics	Assignments
Weeks 1	Welcome and introductions	Lab discussion post
Weeks 2	Introduction to Networking	Lab discussion post
Weeks 3	Infrastructure and Documentation	Lab discussion post
Weeks 4	Addressing	Lab discussion post
Weeks 5	Protocols	Lab discussion post
Weeks 6	Cabling	Lab discussion post
Weeks 7	Wireless Networking	Lab discussion post
Weeks 8	Midterm Exam	
Weeks 9	Spring Break	
Weeks 10	Network Architecture	Lab discussion post
Weeks 11	Segmentation	Lab discussion post
Weeks 12	Wide Area Networking	Lab discussion post
Weeks 13	Risk Management	Lab discussion post
Weeks 14-15	Security & Performance	Lab discussion post
Weeks 16	Final Exam	

ACCESSIBILITY: STUDENTS WITH DISABILITIES

If you have a disability and need assistance, special arrangements can be made to accommodate most needs. Please contact the Disability Access Center as soon as possible and share with me the letter attesting to your needs for accommodation.

Disability Access Center Office

Location: Walb Union, Room 113

Tel: 260-481-6657

Email: dac@pfw.edu

CARE REFERRAL

If you are concerned about yourself or a classmate or begin to notice dangerous, disruptive, threatening, distressed, or concerning behaviors, you are encouraged to report the concern through the [online referral form](#). A representative from the CARE Team will follow up with the student to determine how we can best help. This form is not to be used in emergency situations. If you know of a student who is in immediate and pressing danger, please dial 911.

STUDENTS RESOURCES

[Account Resources](#)

includes information about activating different accounts and changing passwords.

[Brightspace Learning Management](#)

provides information about how to use Brightspace such as how to log in, navigate course content and submit assignments.

[Software for Students](#)

includes information about different software that you can access for free such as Office 365, Zoom, and Teams

[Technology Spaces](#)

includes information about different software that you can access for free such as Office 365, Zoom, and Teams

ACADEMIC HONESTY

Academic Misconduct, including plagiarism (copying another team's work and presenting that work as their own) or using your own work from a previous course without the express permission of the instructor, is not allowed. Please be aware of what behaviors constitute [academic misconduct](#) (See the [Code of Students Rights, Responsibilities and Conduct](#) Part II. A.)



DEPARTMENT OUTCOMES

- CAC/ABET Learning Outcomes 2.0

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Identify and analyze user needs and to take them into account in the selection, creation, integration, valuation, and administration of computing-based systems. [IT]

- ABET Technology Accreditation Commission (TC2K) Criterion 2. Program Outcomes

Although institutions may use different terminology, for purposes of Criterion 2, program outcomes are statements that describe what units of knowledge or skill students are expected to acquire from the program to prepare them to achieve the program educational objectives. These are typically demonstrated by the student and measured by the program at the time of graduation. An engineering technology program must demonstrate that graduates have:

- a. an appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines,
- b. an ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology,
- c. an ability to conduct, analyze and interpret experiments and apply experimental results to improve processes,
- d. an ability to apply creativity in the design of systems, components or processes appropriate to program objectives,
- e. an ability to function effectively on teams,
- f. an ability to identify, analyze and solve technical problems,
- g. an ability to communicate effectively,
- h. a recognition of the need for, and an ability to engage in lifelong learning,
- i. an ability to understand professional, ethical and social responsibilities,
- j. a respect for diversity and a knowledge of contemporary professional, societal and global issues,
- k. a commitment to quality, timeliness, and continuous improvement.

- CPET ABET Learning Outcomes

A student who successfully fulfills the course requirements will have demonstrated the following knowledge, skills, and ability:

1. To provide knowledge of LAN components, protocols, topologies, and network architecture, (TAC/ABET item a)
2. To allow the installation of Network Operating System (NOS) such as Windows or Linux, (TAC/ABET item b)
3. To introduce methodology and tools needed in LAN management, (TAC/ABET item d)
4. To enable the learning of how to use manuals, handbooks, technical references, Web sites, and material/equipment specifications in the management of a LAN, (TAC/ABET item h)
5. To identify network points of failure and implement disaster recovery, (TAC/ABET item f)
6. Can determine efficiency in proper network design. (TAC/ABET item d)
7. Ability to install and setup a network interface card (NIC), (TAC/ABET item b)
8. Administer rights and privileges pertaining to a network. (TAC/ABET item c)

After reading the syllabus, please send me an email by the end of the week with the words: "Yes, I read the syllabus". Please let me know also if you have any questions. This is a way for me to know that you have read the syllabus.

