



## COURSE SYLLABUS

**COURSE TITLE:** NETWORK MANAGEMENT

**TERM & YEAR:** Spring I 2020

**COURSE & SECTION NUMBER:** CSIT 223

**TIME & PLACE:** Online

**NUMBER OF CREDIT HOURS:** 3-0-3

**INSTRUCTOR:**

**OFFICE LOCATION/HOURS:**

**OFFICE PHONE:**

**EMAIL:**

**COURSE DESCRIPTION:** This course is an introduction to technologies, terminology, and skills used in the world of data networking. Emphasis is on practical applications of networking and computer technology to real-world problems. Prepares students for entry-level jobs as a networking technician and prepares them for learning more advanced topics in networking. Students will be introduced to topics covering the CompTIA Network+ and Cisco CCNA professional certification exams.

**PREREQUISITES:** CSIT 123 IT Infrastructure Basics

**REQUIRED TEXT:** Sequeira, Anthony and Michael D. Taylor. *CompTIA Network+ N10-007 Cert Guide*, Deluxe Edition, 2018. Pearson Higher Education ISBN-10: 0-7897-5982-9, ISBN-13: 978-0-7897-5982-5

**REFERENCES:** OSI Model

**OTHER MATERIALS:** Wireshark network analyzer software (<http://www.wireshark.org/>) and the CompTIA Network+ N10-007 Hands-on Lab Simulator (included with textbook)

**LEARNING OUTCOMES:** Upon completion of this course, the student should be able to:

1. Identify different types and uses of networks
2. Explain computer protocols including TCP/IP, the protocol for the Internet
3. Describe the function, equipment, addressing, and protocols used at each layer of the OSI Model
4. Create wired and wireless networks with appropriate functionality.

### COURSE REQUIREMENTS:

#### ATTENDANCE/PARTICIPATION:

Participants must visit the online course room (Moodle) once a day to view assignments, announcements, and read/respond to class online discussion boards

You are expected to attend all classes. Your attendance record affects your grade in class. Per department policy, every three unexcused absences will result in the lowering of your grade by one letter. Excused absences require a doctor's note (or other acceptable documentation) for sickness or may be a pre-approved university sponsored event. If you miss a class, it is your responsibility to get notes and materials that were handed out. Arrangements for ANY makeup work must be made in advance or you will receive a zero for the work.

## GRADING / EVALUATION:

All assignments must be completed satisfactorily in order to pass the course. The grading process described below is subject to change by the Instructor

Activity	Percent
Weekly Assignments – Chapters (1-14)	80%
Class Discussion/Participation	5%
Midterm Exam	5%
Final Exam	10%

Grade	Percentage
A	90-100%
B+	86-89%
B	80-85%
C +	76-79%
C	70-75%
D+	66-69%
D	60-65%
F	0-59%

## OTHER POLICIES:

### ACADEMIC MISCONDUCT

The University prohibits all forms of academic misconduct. Academic misconduct refers to dishonesty in examinations (cheating), presenting the ideas or the writing of someone else as one's own (plagiarism) or knowingly furnishing false information to the University by forgery, alteration, or misuse of University documents, records, or identification. Academic dishonesty includes, but is not limited to, the following examples: permitting another student to plagiarize or cheat from one's own work, submitting an academic exercise (written work, printing, design, computer program) that has been prepared totally or in part by another, acquiring improper knowledge of the contents of an exam, using unauthorized material during an exam, submitting the same paper in two different courses without knowledge and consent of professors, or submitting a forged grade change slip or computer tampering. The faculty member has the authority to grant a failing grade in cases of academic misconduct as well as referring the case to Student Life.

### PLAGIARISM

You are expected to submit your own work and to identify any portion of work that has been borrowed from others in any form. An ignorant act of plagiarism on final versions and minor projects, such as attributing or citing inadequately, will be considered a failure to master an essential skill and will result in an F for that assignment. A deliberate act of plagiarism, such as having someone else do your work, or submitting someone else's work as your own (e.g., from the Internet, fraternity file, etc., including homework and in-class exercises), will at least result in an F for that assignment and could result in an F for the course.

### E-DEVICE POLICY

Use of electronic devices including smart watches and cell phones is prohibited during exams or quizzes unless directly allowed by the instructor.

### DIGITAL MEDIA DEVICES

Our learning environment, including classrooms and public lecture halls, should be free from disruptions from personal communication and media devices. In such settings, cell phones and all other such devices must be turned off. Camera cell phones must be turned off in locker rooms and other such private places. The use of a computer in the classroom is a privilege, not a right. The student must understand (and resist) the temptation to

“surf the ‘net” or engage in ANY activity not related to the classroom topic and discussion. Violations of the Trine University Information Technology Security Policy may result in disciplinary action by the University.

### COURSE CALENDAR/SCHEDULE:

Week #	Learning Module Assignment #	Topic/Assignment (Learning Module details under Course Content)	Due Date	Submit via	Points
1		Chapter 1 & 2	1/11/2020	Discussion Board 1	
	Assignment:	Under Week 1 Assignments.		Moodle	100
2		Chapter 3 & Chapter 4	1/18/2020	Discussion Board 2	
	Assignment:	Under Week 2 Assignments.		Moodle	100
3		Chapter 5 & 6	1/25/2020	Discussion Board 3	
	Assignment:	Under Week 3 Assignments.		Moodle	100
4		Chapter 7 & 8	2/1/2020	Discussion Board 4	
	Assignment:	Under Week 4 Assignments.		Moodle	100
5		Chapter 9 & 10	2/8/2020	Discussion Board 5	
	Assignment:	Under Week 5 Assignments.		Moodle	100
6		Chapter 11 & 12	2/15/2020	Discussion Board 6	
	Assignment:	Under Week 6 Assignments.		Moodle	100
7		Chapter 13	2/22/2020	Discussion Board 7	
	Assignment:	Under Week 7 Assignments.		Moodle	100
8		Chapter 14	2/29/2020	Discussion Board 8	
	Assignment:	Final Exam Course Evaluation		Moodle	100
Note: Late assignments receive no more than 80% of the points available. Resubmission of any assignment (allowing for corrections) will have 10 points deducted for each resubmission. The course schedule is subject to change by the Instructor					

### ADDITIONAL INFORMATION:

**Note:** This syllabus is subject to change based on the needs of the class

### ACADEMIC RESOURCES:

There are several academic services that may be useful to you during the semester along with the library and assistance with digital resources that can found in the University Center LINK.

The links to information here include:

- *Writing Center:*
- *Math Help Sessions:*
- *Study Sessions:*
- *Parent and Family Support and Parent Newsletter:*
- *Accessibility and Accommodations:*

They are accessible on one page at the following link:

<https://www.trine.edu/academics/success/academic-support-services.aspx>

## Course Mapping

### CSIT 223 Network Management

**Course Description:** This course is an introduction to technologies, terminology, and skills used in the world of data networking. Emphasis is on practical applications of networking and computer technology to real-world problems. Prepares students for entry-level jobs as a networking technician and prepares them for learning more advanced topics in networking. Students will be introduced to topics covering the CompTIA Network+ and Cisco CCNA professional certification exams.

#### Learning Outcomes:

1. Identify different types and uses of networks. **(LO1)**
2. Explain computer protocols including TCP/IP, the protocol for the Internet. **(LO2)**
3. Describe the function, equipment, addressing, and protocols used at each layer of the OSI Model. **(LO3)**
4. Create wired and wireless networks with appropriate functionality. **(LO4)**

Week One: Fundamentals (LO1,3)	
Learning Activities and Materials	Assessments
Read: <ul style="list-style-type: none"><li>• Chapter 1 &amp; 2 (LO1) (LO3)</li></ul> Watch: <ul style="list-style-type: none"><li>• Introduction to IP – CompTIA Network + Video (LO1)</li></ul>	Participate: <ul style="list-style-type: none"><li>• Discussion board post week 1 &amp; Introduction (LO1)</li></ul> Assignment: Complete Week 1 Assignment covering Chapter 1 & 2 (LO1) (LO3)
Week Two: Network components (LO3)	
Learning Activities and Materials	Assessments
Read: <ul style="list-style-type: none"><li>• Chapter 3 &amp; 4 (LO3)</li></ul> Watch: <ul style="list-style-type: none"><li>• Network Components video (LO3)</li></ul>	Participate: <ul style="list-style-type: none"><li>• Discussion board post week 2 (LO3)</li></ul> Assignment: Complete Week 2 Assignment covering Chapter 3 & 4 (LO3)
Week Three: IP Addresses (LO2,3)	
Learning Activities and Materials	Assessments

Read: <ul style="list-style-type: none"> <li>Chapters 5 &amp; 6 (LO2 &amp; LO3)</li> </ul> Watch: <ul style="list-style-type: none"> <li>An Overview of IPv4 and IPv6 – Video (LO 2)</li> <li>IP Routing Explained – Video (LO3)</li> </ul> Lab: Complete Lab 1	Participate: <ul style="list-style-type: none"> <li>Discussion board post week 3 (LO3)</li> </ul> Assignment: <ul style="list-style-type: none"> <li>Complete Week 3 Assignment covering Chapter 5 &amp; 6(LO2) (LO3)</li> </ul>
<b>Week Four: Networks (LO1,4)</b>	
<b>Learning Activities and Materials</b>	<b>Assessments</b>
Read: <ul style="list-style-type: none"> <li>Chapter 7 &amp; 8 (LO1 &amp; LO4)</li> </ul> Watch: WAN Technologies – CompTIA Network +N10-007 – Video (LO1) (LO4)	Participate: <ul style="list-style-type: none"> <li>Discussion board post week 4 (LO1)</li> </ul> Assignment: Complete Week 4 Assignment covering Chapter 7 & 8 (LO1)(LO4)
<b>Week Five: Optimization (LO3)</b>	
<b>Learning Activities and Materials</b>	<b>Assessments</b>
Read: <ul style="list-style-type: none"> <li>Chapters 9 &amp; 10 (LO3)</li> </ul> Watch: <ul style="list-style-type: none"> <li>Networking Command Line Tools – Video (LO3)</li> </ul> Lab: Complete Lab 2	Participate: <ul style="list-style-type: none"> <li>Discussion board post week 5 (LO3)</li> </ul> Assignment: <ul style="list-style-type: none"> <li>Complete Week 5 Assignment covering Chapter 9 &amp; 10 (LO3)</li> </ul>
<b>Week Six: Network Management (LO4)</b>	
<b>Learning Activities and Materials</b>	<b>Assessments</b>
Read: <ul style="list-style-type: none"> <li>Chapter 11 &amp; 12 (LO4)</li> </ul> Watch: Securing Your WiFi Network – Video (LO4)	Participate: <ul style="list-style-type: none"> <li>Discussion board post week 6 (LO4)</li> </ul> Assignment: Complete Week 6 Assignment covering Chapter 11 & 12 (LO4)
<b>Week Seven: Network Policies (LO4)</b>	
<b>Learning Activities and Materials</b>	<b>Assessments</b>
Read: <ul style="list-style-type: none"> <li>Chapter 13 (LO4)</li> </ul> Watch: Security and Network Policies Video (LO4)	Participate: <ul style="list-style-type: none"> <li>Discussion board post week 7 (LO4)</li> </ul> Assignment: Complete Week 7 Assignment covering Chapter 13 (LO4)
<b>Week Eight: Network troubleshooting (LO4)</b>	
<b>Learning Activities and Materials</b>	<b>Assessments</b>

Read: Chapter 14 (LO4)	Participate: <ul style="list-style-type: none"> <li>• Discussion board post week 8 (LO4)</li> </ul> Assignment: <ul style="list-style-type: none"> <li>• Final Exam (LO4)</li> </ul>
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