

1. Course Title:

**Communications – Local Area Networks
EET 452 – 4 Credits**

EET Program Requirement

Prerequisite: EET 375

This is a Technical content course under ABET Criterion 5

2. Faculty Member Information:

Instructor:

Office: Hebeler 101a

Phone: 509-963-2289

E-mail: holdenl@cwu.edu

3. Course Description:

A study of computer network protocols, topologies, and device configurations.

4. Textbook and other required materials for the course:

Tomasi, Wayne D., *Introduction to Data Communications and Networking*, Prentice Hall, 2005

5. Specific Learner and Expressive Outcomes and Assessment Strategies:

ABET Outcome Criteria #	Learner Outcomes	Assessment
9.A.3.	1. The student will be able to describe LAN topologies including their operational characteristics.	The student will complete homework assignments, and a written test.
	2. The student will be able to describe LAN characteristics including MAC and Ethernet control characteristics.	The student will complete homework assignments, a written test.
9.a.2.	3. The student will be able to explain how Internet TCP/IP on Ethernet addressing protocol works.	The student will complete a written test, laboratory work, and write reports on laboratory work.
	4. The student will be able to explain how network addressing works with subnets and masks.	The student will complete homework assignments, and a written test.
	5. The student will be able to explain how address resolution works with IP addressing and hardware	The student will complete homework assignments, and a written test.
	6. The student will be able to explain how the Internet Control Message Protocol (ICMP) works	The student will complete homework assignments, and a written test.
	7. The student will be able to explain how TCP and UDP are similar and different in their operation over IP in the Transport Layer	The student will complete homework assignments, and a written test.
	8. The student will be able to explain the enhanced operations of the Internet Protocol Version 6	The student will complete homework assignments, and a written test.
	9. The student will be able to explain how the Domain Name Protocols work including BOOTP and DHCP operations	The student will complete homework assignments, and a written test.
	10. The student will be able to describe TCP/IP Application-Layer Protocols and their uses.	The student will complete a written test, laboratory work, and write reports on

		laboratory work.
	11. The student will be able to describe the operation of Integrated Services Data Networks and their uses.	The student will complete homework assignments, and a written test.

6. Course Topics and Schedule:

- Network Topologies and Devices 4 hours
- LANS 4 hours
- TCP/IP Protocol 6 hours
- Networks and Network-Layer Protocols. 6 hours
- Internet Control Message Protocols 6 hours
- Transport Layer Protocols 4 hours
- Configuration and Domain Name Protocols 4 hours
- TCP/IP Application-Layer Protocols 6 hours

7. Grading:

Grade	%	Grade	%	Grade	%	Grade	%	Grade	%
		B+	87 - 90	C+	77 - 80	D+	67 - 70	F	< 60
A	94 - 100	B	83 - 87	C	73 - 77	D	63 - 67		
A-	90 - 94	B-	80 - 83	C-	70 - 73	D-	60 - 63		

Grading Percentages

Test 1	30%
Test 1	30%
Homework	20%
Participation	20%

8. ADA Statement:

Students who have special needs or disabilities that may affect their ability to access information and or material presented in this course are encouraged to contact me or Robert Harden, ADA Compliance Officer, Director, ADA Affairs and Students Assistance on campus at 963-2171 for additional disability related educational accommodations.