9/5/13	DATE	Technology	DIVISION
X	REQUIRED COURSE		NEW COURSE
X	ELECTIVE COURSE	X	REVISION

LAKE LAND COLLEGE
Course Information Form

COURSE NUMBER EET066 **TITLE** Network Pro

SEM CR HRS 4 **LT HRS** 4 **LAB HRS** 0 **SOE HRS** 0 **ECH** 4

COURSE PCS# _____ (Assigned by Administration)

Prerequisites: **EET060 and CIS081 or permission of instructor**

Catalog Description (40 Word Limit):

This course covers material needed to pass the Computing Technology Industry Association Net+ and Electronics Technicians Association CNST exam. Topics include an in-depth look at data transmission and covers basic telephony, LAN, Satellites, modems, error control and data security.

List the Major Course Segments (Units)	Lt Hrs	Lab Hrs
DataComm Fundamentals	5	
Data Transmission	5	
Basic telephony	10	
Modems	10	
LAN	15	
Network Management and Trouble shooting	5	
Error control and data security	5	
Satellite Communications	5	

EVALUATION:

Quizzes	X	**Exams**	X	**Oral Pres**		**Papers**	
Lab Work		**Projects**		**Comp Final**	X	**Other**	

Textbook:

Title:	**NETWORK+ GUIDE TO NETWORKS**
Author:	**Tamara Dean**
Publisher:	**Course Technology**
Volume/Edition:	**6th**
Copyright Date:	**2013**

Major Course Segment	Hours	Learning Outcomes Student will be able to . . .
DataComm Fundamentals	5	Define the terms; Protocols, network topology, DTE and DCE, Modems, Baud and Bit Rates, modulation methods, and terminal codes.
Data Transmission	5	Describe the basic waveform types and transmission media, basic electrical properties of cable, types of encoding, error control, and data conversion methods.
Basic Telephony	10	Identify the purpose and describe the theory of pulse and tone dialing, local exchange loops, BORSCHT functions, public inter connect, pulse modulation, voice channel characteristics, multiplexing, T carriers, and SONET.
Modems	10	Differentiate between different modulation types, understand the HAYES AT command set, V series to include V.90, loop back test, and modem chipset functions. Students will be able to correctly install and configure a modem.
LAN	15	Describe of LAN types, OSI model, protocols, IEEE 802 LAN standards. NIC testing and troubleshooting, TCP/IP, ARP, RDL, DHCP,WINS,PPP,PPTP, packet switching, and ISDN.
Network Management and Troubleshooting	5	Identify components unique to configuration management, performance management, and fault management. Student will understand several different approaches to troubleshooting and test equipment used.
Error Control and Data Security	5	Describe basic data communication error control methods, such as parity, LRC, and CRC. Student will understand the basics of data encryption.
Satellite Communications	5	Identify satellite applications, frequencies, orbits, and multiplexing techniques.

Course Outcomes: At the successful completion of this course, students will be able to:

- Describe the purpose of the OSI model and each of its layers.
- Explain how the TCP/IP protocols correlate to layers of the OSI model.
- Describe the basic and hybrid LAN physical topologies.
- Explain the purposes and properties of routing.
- Describe characteristics common to all Network Operating Systems.