

Tri-Rivers Career Center

Course Syllabus Semester 2 Senior Year
Academic Year 2010-11

PROGRAM: Computer Networking Electronics Technologies 2 (CNET 2)

COURSE DESCRIPTION:

CNET 2 is the second year of a two year program. In the second year the student will learn to design, install and maintain data networks. All students are members of the Cisco Networking Academy and will complete Exploration 1 training. Test-Out instructional software is used for the Network Plus certification training. The students are prepared to take Industry certifications at different times during the 2 years.

CREDIT HOURS: 3

SEMESTER: ___1st ___X___2nd

INSTRUCTOR: Jeff Young

PHONE: 740-389-4681 ext 273

PREREQUISITE(S): CNET1

ROOM/TIME: 167 8:15 AM – 11:15 PM

OFFICE: Rm 167

EMAIL: jeyoung@tririverscc.org

MAJOR OBJECTIVES

A student completing this course will be able to:

- Explain the importance of data networks and the Internet in supporting business communications and everyday activities
- Explain how communication works in data networks and the Internet
- Recognize the devices and services that are used to support communications across an Internetwork
- Use network protocol models to explain the layers of communications in data networks
- Explain the role of protocols in data networks
- Describe the importance of addressing and naming schemes at various layers of data networks
- Describe the protocols and services provided by the application layer in the OSI and TCP/IP models and describe how this layer operates in various networks
- Analyze the operations and features of transport layer protocols and services
- Analyze the operations and feature of network layer protocols and services and explain the fundamental concepts of routing
- Design, calculate, and apply subnet masks and addresses to fulfill given requirements □
Describe the operation of protocols at the OSI data link layer and explain how they support communications
- Explain the role of physical layer protocols and services in supporting communications across data networks
- Explain fundamental Ethernet concepts such as media, services, and operation
- Employ basic cabling and network designs to connect devices in accordance with stated objectives
- Use Cisco command-line interface (CLI) commands to perform basic router and switch configuration and verification
- Analyze the operations and features of common application layer protocols such as HTTP, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Simple Mail Transfer Protocol (SMTP), Telnet, and FTP
- Utilize common network utilities to verify small network operations and analyze data traffic

EMPLOYMENT OPPORTUNITIES

- Network repair technician
- Network administration
- Retail Electronics sales
- Network System Installation

ATTENDANCE:

Students are responsible for attending every class and for the material presented. If the student will not be attending class, he or she must follow Tri-Rivers absence procedures by calling in and providing an acceptable written excuse to the main office.

Absences are automatically marked as unexcused.

If the absence is excused, it is the student's responsibility to check his or her grades upon returning to school and inquire about the excused absences and any other discrepancies.

If the attendance office has listed the student as excused then the grade will be changed. If no inquiries are made within 1 week of return, then no corrections will be made.

GRADING PROCEDURES:

The employability grade is 20 points per day. No uniform results in loss of all employability points. Tests, Quizzes or assignments will be a zero with no opportunity to make these up. If a student is in ISS or unexcused absence, employability points will also be lost.

Grading Scale

90 – 100%	A
80 – 89 %	B
70 – 79 %	C
60 – 69 %	D
0 – 59 %	F

Grading Criteria

Employability Skills \ Participation	25%
Tests	20%
Quizzes	10%
Labs / Projects	45%

AVAILABLE SUPPORT SERVICES:

- Learning Center
- Technology Resource Center

ADDITIONAL INFORMATION:

Eating and drinking is not permitted in the lab or related room. All copyright laws will be observed. It is illegal to copy most software.

Cell phone usage is not permitted in class. This includes text messaging.

IMPORTANT DATES

January 17	Martin Luther King Day (No School)
February 1	Advanced Placement
February 11	Interim Report
February 17	Parent/Teacher Conferences (3:30-6:30 p.m.)
February 18	Parent/Teacher Conferences (7:30-10:30 a.m.)(No School)
February 21	President's Day (No School)
March 14-18	OGT Assessment
March 18	End of 3 rd Quarter
March 21 – March 25	Spring Break (No School)
April 22	Good Friday (No School)
April 29	Interim
May 05	Senior Recognition 7:00 p.m. at The Palace
May 06	Fish Day
May 10, 11	Level 2 Exams
May 24, 25	Level 1 & Transition Exams
May 26	End of 4 th Quarter and 2 nd Semester
May 26, 27	Makeup Days (if necessary)
May 30	Memorial Day (No School)
May 31 - June 3	Makeup Days (if necessary)
May 31	Great Start 2011 1:00-7:00
June 09	Great Start 2011 7:00-1:00

COURSE RESOURCES:

<http://cisco.tririverscc.org>

<http://cisco.netacad.net/>

Test Out Software

<http://www.math.ohiou.edu/~just/hex.htm>

http://scholar.hw.ac.uk/site/computing/subindex_f1ncomp5topic1.html

<http://www.psinvention.com/zoetic/base2.htm>

http://www.allaboutcircuits.com/vol_1/chpt_9/1.html

http://arts.ucsc.edu/ems/music/tech_background/TE-06/teces_06.html

<http://netlab.caltech.edu/netlab-pub/EoTwiley.pdf>

<http://www.cs.panam.edu/~meng/Course/CS6345/Notes/chpt-6/node8.html>

http://searchnetworking.techtarget.com/sDefinition/0,,sid7_gci213908,00.html

<http://www.ieee.org/portal/site>

<http://www.tiaonline.org/>

<http://www.siemon.com/us/standards/>

<http://www.linktionary.com/linktionary.htm>

Course Schedule/Content		
Week	Content/Standard	Material Covered
1	Module 8/11/12 Unit 21,22,25	6.0 Wireless Networking (Test-Out)
2	Module 8 Unit 25	Cisco Chapter 7 Data Link Layer
3	Module 8/11 Unit 22,25	Cisco Chapter 10 Planning and Cabling Networks
4	Module 6,9,10,12 Unit 18,19,21,22,26,23,24	7.0 Wide Area Networks (WANs) (Test-Out)
5	Module 10,12 Unit 18, 26,23,24	Cisco Chapter 5 OSI Network Layer
6	Module 6,9 Unit 18,19,21, 23,24	Cisco Chapter 3 Application layer Functionality and Protocols
7	Module 14/15 Unit 22,23,24,44	8.0 Network Security (Test-Out)
8	Module 6,10 Unit 18,19,22,23	Cisco Chapter 3 Application layer Functionality and Protocols
9	Module 10,12 Unit 18, 26,23,24	Cisco Chapter 5 OSI Network Layer
10	Module 9,12,14/15 Unit 18,19,22,23,24,44,47	9.0 Network Management (Test-Out)
11	Module 9, 15 Unit 18,44,47	Cisco Chapter 6 Addressing the Network
12	Module 6,12 Unit 24,30	Cisco Chapter 11 Configuring and Testing Your Network
13	Module 6,12,8 Unit 18,19,22,23,24,30	10.0 Troubleshooting (Test-Out)
14	Module 6,12 Unit 24,30	Cisco Chapter 11 Configuring and Testing Your Network
15	Module 6,8 Unit 23,24,30	Cisco Chapter 4 OSI Transport Layer
16		Practice Exams (Test-Out)
17	Module 6,8 Unit 23,24,30	Cisco Chapter 4 OSI Transport Layer
18	Module 9, 15 Unit 18,44,47	Cisco Chapter 6 Addressing the Network

NOTE: This is a tentative schedule and subject to change at the discretion of the instructor.

EVALUATION PROCEDURES

LABS/ACTIVITIES:

Lab experiments are performed with student monitors. When the student can perform the lab activity without assistance, they will receive daily point credit or separate Lab point credit.

ASSESSMENTS AND FINALS

Test-Out practice exams are used to monitor overall student progress.

SKILLS FINAL/CERTIFICATION

Comp-TIA Network+ Certification Exam