El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Information Technology Systems**
COURSE RUBRIC AND NUMBER	**ITCC 1301**
COURSE TITLE	**Cisco Exploration 1-Netework Fundamentals**
COURSE CREDIT HOURS	**3 3 : 1** **Credits Lec Lab**

I. Catalog Description

Provides a course introducing the architecture, structure, functions, components, and models of the internet. Describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the applications, network, data link, and physical layers. Covers the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Builds simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. **(3.1).**

II. Course Objectives

Upon satisfactory completion of this course, the student will be able to:

A. Describe the devices and services used to support communications in data networks and the Internet.
B. Describe the role of protocol layers in data networks.
C. Describe the importance of addressing and naming schemes at various layers of data networks in IPv4 and IPv6 environments.
D. Design, calculate, and apply subnet masks and addresses to fulfill given requirements in IPv4 and IPv6 networks.
E. Explain fundamental Ethernet concepts such as media, services, and operations.
F. Build a simple Ethernet network using routers and switches.
G. Use Cisco command-line interface (CLI) commands to perform basic router and switch configurations.
H. Utilize common network utilities to verify small network operations and analyze data traffic.
I. Update skills to current technologies
J. Apply network protocol.
K. Identify open source technology.
L. Design, Execute, Review, Test and Share a solution.
Q. Practice physical security.

III. THE CB Learning Outcomes (WECM)

1. Identify and describe Internet architecture, structure, functions, components, and models.
2. Describe the use of OSI and TCP layered models.
3. Identify and describe the nature and roles of protocols and services at the application, network, datalink, and physical layers.
4. Describe principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations.

5. Build simple LAN topologies by applying basic principles of cabling, device configuration, and IP subnetting.

IV. Evaluation

- **There are 11 online exams that will contribute 5% to the final grade.**
- **There will be labs assigned that will contribute 20% to the final grade.**
- **There is an online final exam that will contribute 45% to the final grade.**
- **There will be a skills test that will contribute 30% to the final grade.**

Percentage	Letter Grade
90–100	A
80–89.99	B
70–79.99	C
60–69.99	D
0–59.99	F

V. Disability Statement (Americans with Disabilities Act[ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201(831-4198); NWC Rm M-54 (831-8815); and MDP RmA-125(831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all under graduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.