

El Paso Community College

Syllabus

Part II

Official Course Description

SUBJECT AREA	<u>Information Technology Systems</u>
COURSE RUBRIC AND NUMBER	<u>ITCC 1304</u>
COURSE TITLE	<u>Cisco Exploration 2-Routing Protocols and Concepts</u>
COURSE CREDIT HOURS	<u>3 3 : 1</u> Credits Lec Lab

I. Catalog Description

Describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Recognize and correct common routing issues and problems. Model and analyze routing processes. **Prerequisite: ITCC1301. (3:1).**

II. Course Objectives

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

- A. Describe and explain basic switching concepts and the operation of Cisco switches.
- B. Describe the purpose, nature, and operations of a router, routing tables, and the route lookup process.
- C. Describe how VLANs create logically separate networks and how routing occurs between them.
- D. Describe dynamic routing protocols, distance vector routing protocols, and link-state routing protocols.
- E. Configure and troubleshoot static routing and default routing (RIP and RIPng).
- F. Configure and troubleshoot an Open Shortest Path First (OSPF) network.
- G. Configure and troubleshoot access control lists (ACLs) for IPv4 and IPv6 networks.
- H. Configure and troubleshoot Dynamic Host Configuration Protocols (DHCP) for IPv4 and IPv6 networks.
- I. Configure and troubleshoot Network Address Translation (NAT) operations.

III. THECB Learning Outcomes (WECM)

1. Describe the architecture, components, and operation of routers and explain the principles of routing and routing protocols.
2. Analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF.

3. Recognize and correct common routing issues and problems.
4. Model and analyze routing processes.

IV. Evaluation

- There are 11 online exams that will contribute 10% to the final grade.
- There are Hands on Labs labs that will contribute 20% to the final grade.
- There is an online final exam that will contribute 35% to the final grade.
- There will be a skills exam that will contribute 35% to the final grade.

Grading Scale:

90 - 100 = A

80 - 89 = B

70 - 79 = C

60 - 69 = D

Below 60 = F

Incomplete = I

Withdrawn = W

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 Rm A-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 undergraduate 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.