

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: CTEC 256

Credit Hours: 4-4-0

Course Title: CCNA II

Course Prerequisite: CTEC 255

Textbook(s) and Materials: This course will also utilize the learning modules and materials provided by the Cisco Networking Academy through <https://www.netacad.com>.

Optional Textbook: Cisco Press. Routing and Switching Essentials v6 Companion Guide, 1st edition. ISBN: 9781587134289

Course Description: Develop networking skills based on the Cisco Certified Network Associate (CCNA) curriculum by introducing students to the Cisco Networking Academy Program, architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Analyze, configure, verify and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Recognize and correct common routing issues and problems. This course continues the preparation for the ICND1 exam.

Learning Outcomes:

At the end of this course, the student will:

- A. recognize the function and operation of Cisco routers;
- B. explain the process of routing packets; and
- C. explain the IP addressing scheme and sub-netting.

To achieve the learning outcomes, the student will or will be able to:

(The letter designations at the end of each statement refer to the learning outcome(s).)

1. recognize network segmentation with switches and routers (A);
2. identify switched LAN Architecture, matching switches to specific LAN functions (A);
3. identify Ethernet/802.3 LANs, forwarding frames using switch, switch management configuration and configuring switch security (A);
4. describe how packets are routed across Cisco networks (B);
5. recognize inter-VLAN routing, configuring, and troubleshooting VLAN routing (B);
6. explain the IP addressing scheme as it relates to routing (C);
7. recognize wireless LAN, wireless LAN security, configuration, and troubleshooting (C);
8. recognize VLANs, VLAN trunking, configuring, and troubleshooting VLANs and Trunks (A, B);
9. recognize VTP concepts, VTP operation and configuration (A,B);
10. identify STP, STP convergence, and STP variants (A,B); and
11. troubleshoot common network problems (A,B,C).

Course Requirements:

1. The final exam for this course is required to be taken on campus or an approved proctored environment.
2. A student must successfully complete the course with an average of 70% or above on the combined learning outcomes.
3. Each student is expected to attend classes regularly; excessive unexcused absences constitute grounds for suspension (refer to the student handbook for attendance policies).

Course Grading Scale:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F = 0 - 59

Attendance Policy: The college attendance policy is available at <http://www.bpcc.edu/catalog/current/academicpolicies.html>

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams, and/or clinical fees.

Nondiscrimination Statement: Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

COORDINATOR FOR SECTION 504 AND ADA

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Equity/Compliance Coordinator

Teri Bashara, Director of Human Resources

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