

Bossier Parish Community College  
Master Syllabus

**Course Prefix and Number:** CTEC 258

**Credit Hours:** 4-4-0

**Course Title:** CCNA IV

**Course Prerequisite:** CTEC 257

**Textbook(s) and Materials:** The course will utilize the learning modules and materials provided by the Cisco Networking Academy found at <https://www.netacad.com>.

**Optional Book:** Cisco Press. Connecting networks Companion Guide, v6.  
ISBN: 9781587134326

**Course Description:** The student will explore networking, protocols, network standards, advanced network design projects, advanced network management projects, wide area network (WAN) theory and design, WAN technology, Frame Relay, integrated system digital network (ISDN), and network troubleshooting. The class will continue on preparation for the ICND2 exam, and the CCNA certification.

**Learning Outcomes:**

At the end of this course, the student will:

- A. identify network protocols;
- B. recognize WANs and related technologies; and
- C. understand ISDNs, IPSec Tunneling, SNMP, and Netflow.

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. discuss network protocols in detail (A);
2. describe various modules in network design and enterprise network architecture (A);
3. describe the relationships between protocols (B);
4. identify the topology of WANs and Frame Relay (B);
5. identify different types of broadband solutions (B);
6. recognize ISDNs and their structure and function (C);
7. describe the benefits and drawbacks of NAT and PAT (A,B,C);
8. identify ways to secure site-to-site connectivity (A,B,C);
9. identify ways to monitor network operations and NetFlow (A,B,C); and
10. explain how to document the network and troubleshoot network issues (A, B, C).

**Course Requirements:**

1. The certification exam(s) 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://catalog.bpcc.edu/content.php?catoid=5&navoid=369>

**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**

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