

Bossier Parish Community College  
Master Syllabus

**Course Prefix and Number:** CTEC 200

**Credit Hours:** 3-3-0

**Course Title:** Network Defense

**Course Prerequisite:** None.

**Textbook(s):** Basta, Alfred, Nadine Basta, and Mary Brown. Computer Security and Penetration Testing, 2<sup>nd</sup> Edition. Cengage, 2014. ISBN-13: 9780840020932

**Course Description:** This course provides students with a foundation in network security fundamentals. The course focuses on how to develop effective security strategies, including basic principles of encryption. This course is required toward the CNSS 4011-4016 certifications.

**Learning Outcomes:**

At the end of this course, the student will:

- A. recognize the basic concepts that are fundamental to ethical hacking;
- B. identify specific types of network attacks and their countermeasures;
- C. describe known vulnerabilities in existing software; and
- D. explain the steps to take and policies to follow when a security-related incident is detected on a network.

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 important issues related to ethical and unethical hacking (A);
2. recognize techniques used in network reconnaissance (B);
3. identify key concepts related to scanners, sniffers programs, software vulnerabilities, principles of cryptography, encryption, and password cracking (B);
4. list techniques used to protect networks from various types of attacks (B);
5. recognize principles related to threats such as spoofing, session hijacking, hacking of network equipment, Trojan horses, denial-of-service attacks, buffer overflows, and programming exploits (B);
6. identify countermeasures to address vulnerabilities in various programming languages (B);
7. identify vulnerabilities in existing software programs such as mail programs, web applications, and operating systems (C);
8. recognize fundamental processes related to incident handling (D);
9. identify the emergency steps that follow an incident. (D)

**Course Requirements:**

1. A student must successfully complete the course with an average of 70% or above on the combined learning outcomes.
2. 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:**

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

**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.

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