Course Prefix and Number: CIT 101
Credit Hours: 3-3-0

Course Title: Network Essentials

Course Prerequisites: None


Software: In addition to the textbook, this course will use the uCertify Labs Training which helps prepare for the CompTIA Net+ Certification. The online training program is provided and ends with the uCertify post assessment in preparation for the CompTIA Net+ Certification.

Course Description: Develop fundamental networking skills including an understanding of network hardware, installation, security, and troubleshooting in a corporate environment. Through classroom and hands-on activities, learn how computers exchange information and how the Internet functions. In addition, this class will help students gain the skills required for the nationally recognized CompTIA Network+ certification exam.

Learning Outcomes:
At the end of this course, the student will:
   A. demonstrate a basic knowledge of networking terms used in the field;
   B. configure basic networking on a windows-based platform;
   C. recognize and correct common networking problems; and
   D. demonstrate an understanding of basic network security.

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. use basic tools to properly design a network (A,B,D);
2. identify TCP/IP v4 and TCP/IP v6 (A,D);
3. set up and configure a basic windows network (B,C,D);
4. explore windows network security (D);
5. explore basic networking on non-windows platforms (A,D);
6. explore current internet trends and emerging network technologies (A,C,D);
7. recognize historical vs current methodology communications (A);
8. recognize the capabilities and limitations of various communications systems including: asynchronous vs synchronous, dedicated line, digital vs analog, line of sight, microwave, public switched network, radio frequency, and satellite (A);
9. recognize historical vs current technology of automated information systems (A);
10. identify automated information systems hardware including: components (e.g., input, output and central processing unit), distributed vs stand-alone, micro, mini, mainframe processors and storage devices (A, CNSS 4011);

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11. identify automated information systems software including: applications and operating systems (A);
12. identify automated information systems memory including: random, sequential, and volatile vs nonvolatile (A);
13. identify automated information systems media including: magnetic remanence and optical remanence (A);
14. identify automated information systems networks including: asynchronous vs synchronous, file servers, modems, sharing of data, sharing of devices, switching and topology (A);
15. identify system operating environment AIS including: firmware, hardware and software (A);
16. identify system operating environment telecommunications systems including: hardware and software (B);
17. apply NSTISS policies and procedures physical security measures including: alarms, building construction, cabling communications centers, environmental controls (humidity and air conditioning), filtered power, information systems centers, physical access control systems (key cards, locks, and alarms), power controls (regulator, uninterrupted power service (UPS), and emergency power off switch), protected distributed systems, shielding, stand-alone systems and peripherals and storage area controls (D, CNSS 4011);
18. apply NSTISS policies and procedures network security including: dial up vs dedicated, end-to-end access control, privileges (class, nodes), public vs private, and traffic analysis (D, CNSS 4011);
19. apply NSTISS policies and procedures administrative security procedural controls Including documentation, logs and journals (D, CNSS 4011);
20. apply policies and procedures Tempest security including: attenuation, banding, cabling, filtered power, grounding, shielding, TEMPEST separation, and zone of control/zoning (D, CNSS 4011); and
21. recognize electronic emanations (D, CNSS 4011).

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

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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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Equity/Compliance Coordinator
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