Baton Rouge Community College
Academic Affairs Master Syllabus

Date Approved: 28 June 2016

Course Name:	**PC and Network Security**	Registrar: Lec-Lab-Credit:	3-0-3

BRCC Course Rubric: **State Common Course Rubric:**

2016: CNET 2503

Prior to 2016: CNET 250   **CIP Code** 11.1003

Lecture:		**Lab:**		**Course:**	
Contact Hrs/Wk:	3	**Contact Hrs/Wk:**	0	**Contact Hrs/Term**	45
Credit Hours:	3	**Credit Hours:**	0	**Credit Hours:**	3

Course Description: Provides an introduction in basic computer and network security skills, which includes developing a comprehensive approach to information security that embraces both the human and technical dimensions. Introduces fundamental concepts and principles of network security's role, design, threats, policies, and elements of cryptography. Examines protocols, architectures, and technologies for secure systems and services.

Prerequisites: None

Co-requisites: None

Suggested Enrollment Cap: **25**

Learning Outcomes: Upon successful completion of this course, the students will be able to:

1. Describe and identify the fundamental concepts and principles of computer and network security.
2. Identify ethical, professional responsibilities, risks and liabilities in computer and network security.
3. Identify, describe, and assess external and internal threats to an organization.
4. Explain the basics of cryptography.
5. Describe the inner-workings of popular encryption algorithms, digital signatures, certificates, anti-cracking techniques, and copy-right protections.
6. Demonstrate the ability to select among available network security technology and protocols such as IDS, IPS, firewalls, SSL, SSH, IPSec, TLS, VPNs, etc.
7. Identify and explain various access control models.
8. Describe the main types of network security policies.
9. Describe and identify the principles of security design.
10. Describe the inner-workings of today's remote exploitation and penetration techniques.
11. 11. Identify advanced security issues and technologies, such as DDos attack detection and containment.
12. Experience using popular security tools.

Assessment Measures: Assessment of all learning outcomes will be measured using the following methods:
1. Structured use of class time
2. Instructor-prepared tests
3. Individual/Group Projects
4. Homework Assignments

Information to be included on the Instructor's Course Syllabi:

- Instructor's Information:
  Name: David L. Sylvester, Sr.
  Office Location: Rm 247, Cypress Bldg
  Email: sylvesterd@mybrcc.edu
  Office Phone: (225) 216-8152
  Office Hours:

  Mondays - 11:15 - 1:30; 2:45 - 3:15

  Tuesdays/Wednesdays - 11:30 - 1:30; 2:45 - 3:15

  Thursdays - 11:30 - 1:30; 2:45 - 3:00

- Additional Course Information:
  CRN: 20282
  Time/Day(s): 1:30 – 2:45 MW
  Building/Room: Cypress Building, Room 210

- Text Book(s)
  Name of book: Introduction to Computer Security
  Author: Michael T. Goodrich and Roberto Tamassia
  ISBN: 978-0-321-51294-9

- Needed Materials:
  - ✓ USB Memory Stick (Jump Drive) 512MB or larger
  - ✓ Students must have regular access to a personal computer system that is Microsoft Windows-based and has an Internet connection.
  - ✓ An active e-mail address is required.
  - ✓ Test Out Registration
  - ✓ Access to BRCC assigned email and CANVAS. (If you have issues with your BRCC email or CANVAS login and/or password, please as soon as possible contact the IT Department.)

  - • This course will be fully taught using TestOut Security Pro online resources – NO TEXTBOOK REQUIRED • Each student must have a personal TestOut account. Students CANNOT share their accounts with other classmates or allow any external access to their accounts. Your account WILL BE deactivated for any misuse or abusive act.

  - • All the assessments (assignments, tests, and exams) will be given on TestOut Web site

  - • The information about the cost of registration and how to purchase the course resource, TestOut Security Pro, is explained below: Students can purchase their training course direct from TestOut; Security Pro costs $129.

Go to www.testout.com. Click "Student Resources". The window "Student Purchasing" opens. Follow the instructions. The promotion code is 14-232TA. Couple key points are required to validate your order: the school name must match exactly the way they have it in the system which is Baton Rouge Community College. Also you should provide my name as David Sylvester. During the checkout process the default is set so that the student would receive immediate online access. An email will be sent to you as soon as your order has been finalized with download instructions.

- Important Links:
  - ✓ Class Website – https://www.syl9.com
  - ✓ BRCC's Home Page – http://mybrcc.edu
  - ✓ CANVAS – https://mybrcc.instructure.com/login/ldap
  - ✓ LOLA – http://my.lctcs.edu/cp/home/displaylogin
  - ✓ TESTOUT - www.testout.com

  All course material must be available for use by second week of school.

- Disability Statement: If any student in this class has a need for accommodations because of a documented disability, please feel free to discuss them with me privately. The college has professionals to guide, counsel, and assist students with disabilities. The Office of Disability Services, located in the Student Center in Room 241, will evaluate and meet with you to discuss your accommodation needs.

- Student Conduct in Class Policy: Any acts of classroom disruption that go beyond the normal rights of students to question and discuss with instructors the education process relative to subject content will not be tolerated. Any issues needed to be resolved must be done first by setting up an appointment or meeting with the instructor immediately after class. If not resolved; then set up a meeting with the Department Chair, followed by a meeting with the Dean. If after evaluating this classroom environment (instructor, fellow students, lab conditions, etc), you feel uncomfortable in ways that may allow you not to perform as a student in a respectful matter toward others, you are advised to make previsions to find another class setting.

- Grading: Students are expected to take or submit assignments/tests on the date specified on the syllabus or as per the instructor's request. Late work will not be accepted!!! Students must have backup copies of assignments at all times. Backup copies will prevent loss of work due to viruses, damaged disks, etc.

GRADING SCALE:	GRADING:
A 90 – 100	Exams (30%)
B 80 – 89	Quizzes (10%)
C 70 – 79	Final Exam (20%)
D 60 – 69	Presentations/Projects/Reports (35%)
F 59 and below	Participation (5%)
I Incomplete	Bonus (5%)
W Withdrawal	

- Attendance Policy: All class assignments are to be done in class. Students are expected to arrive to class on time and remain for the entire class period. Quizzes will begin promptly at the start of the class period. No makeup quizzes.

- General Policies:
  - ✓ Do not Shut Down computers or Print without the Instructor's Permission
  - ✓ All computers are to be used for course work only.
  - ✓ No Games. Students may follow along with the current lesson on the computer. However, no miscellaneous typing on the computers or talking during lecture and instruction time or while another person is reading aloud.
  - ✓ Absolutely no talking during test or exam periods (direct all questions to the instructor). Once the test or exam has started, students that do not have their materials for testing may leave quietly to purchase necessary items.
  - ✓ No eating or drinking in the computer labs.
  - ✓ All cell phones and pagers must be put away and placed on vibrate. Answer all calls outside of the classroom.
  - ✓ Absolutely no audio and/or video recording during class time. Students with disabilities needing to record audio and/or video during class needs to acquire the proper documentation from the Office of Disability Services, then submit approved documentation to the instructor.

- Withdrawing From a Course: It is the student's responsibility to withdraw from a course if he/she fails to meet all course requirements (i.e. passing of all quizzes, assignments, exams, and attendance). The last day to withdraw from courses:

  - 16 Week Semester
    - Begin/End Dates (01/14/2019 – May 11, 2019)
    - Last day to withdraw with "W" – (Friday, March 29, 2019)
  - 1st 7 Week Semester
    - Begin/End Dates (01/14/2019 – March 1, 2019)
    - Last day to withdraw with "W" – (Friday, February 8, 2019)
  - 12 Week Semester
    - Begin/End Dates (02/4/2019 – May 11, 2019)
    - Last day to withdraw with "W" – (Friday, April 12, 2019)
  - 2nd 7 Week Semester
    - Begin/End Dates (03/11/2019 – May 11, 2019)
    - Last day to withdraw with "W" – (Friday, April 12, 2019)

- Cheating and Plagiarism: Plagiarism is defined as using and passing off as one's own ideas, data, or writings of another or presenting as one's own idea or product derived from an existing source.

  Cheating is defined as obtaining information through fraud or deceit: either by the use of unauthorized notes, books, or other sources prior to or during examinations, or by using information under false pretenses. It includes premeditated cheating, which is defined as conscious, pre-planned, deliberate cheating with materials prepared in advance.

  Students are expected to uphold the school's standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work. Students shall be guilty of violating the honor code if they: 1.

  1. Represent the work of others as their own.
  2. Use or obtain unauthorized assistance in any academic work.
  3. Modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit.
  4. Give unauthorized assistance to other students.

5. Misrepresent the content of submitted work.

The penalty for violating the honor code is severe. Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the appropriate authority. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

For this class, it is permissible to assist classmates in general discussions of computing techniques. General advice and interaction are encouraged. Each person, however, must develop his or her own solutions to the assigned projects, assignments, and tasks. In other words, students may not "work together" on graded assignments. Such collaboration constitutes cheating. A student may not use or copy (by any means) another's work (or portions of it) and represent it as his/her own. If you need help on an assignment, contact your instructor.

- Safety Concerns: A student's safety is important in the learning process. Please report any suspicious activity to the Office of Public Safety at 216-8888 and use the red telephones in the halls and classrooms, the outdoor blue light pole phones, or the garage emergency phones located on all floors.

All students are encouraged to sign up for BRCC's emergency notification system. BRCC Connect Emergency Notification provides enhanced emergency communication through text alert, phone messages, emails, and social media updates. Students can register for BRCC Connect through the student login portal at https://brcc.bbcportal.com. The URL for BRCC's safety information is: http://www.mybrcc.edu/about_brcc/policy_index/campus_police_public_safety_policy/index.php.

If necessary, please exit the building quickly, and once outside continue to a safe distance away from the building. Take your possessions with you.

- Library/ Learning Resources:
The Magnolia Library offers a diverse collection of books, periodicals, videos, and on-line resources. As a member of LOUIS: the Louisiana Library Network, we are able to provide access to our Online Public Access Catalog (OPAC) as well as to the OPACs of surrounding institutions. Our online resources include over 84,000 full-text books available through the EBSCOhost eBook Collection and a variety of databases to assist you with your scholarly research or even learn a new language.

- BRCC Cares
  · BRCC Cares is an online reporting system through which students, faculty, staff, administrators, and visitors can inform the College of students who are exhibiting concerning behavior or academic difficulty. This system will directly route reported student issues to the appropriate College representative(s) for possible intervention.

  · BRCC Cares is designed to provide a safe place for the College community to report suspected violations of the Student Code of Conduct and BRCC's Title IX and Sexual Misconduct Policy, including but is not limited to: dating violence, domestic violence, sexual assault, sexual harassment, sexual misconduct, sexual exploitation, stalking, etc., for investigation.

  · Filing a report on BRCC Cares does not take the place of calling the police in the event of an emergency or life-threatening situation.

  · BRCC Cares is located at www.mybrcc.edu//brcccares or by typing "BRCC Cares" in the College website search bar.

- PROGRAM OF STUDY
  It is very important as a student that you are properly apply for the correct program of study. You can check to see if your program of study if accurately recorded by logging into LOLA.

Expanded Course Outline:

    I.   Basic Computer and Network Security Concepts and Principles
    II.   Legal and Privacy Issues
    III.   Internal Threats – Employees, Contractors, Third parties
    IV.   External Threats – Criminals, Corporate Espionage, Hackers, Cyber Warfare, Cyber Terrorism
    V.   Cryptography
    VI.   Secure Network Protocols
    VII. Access Control Models
    VIII. Network Security Policies
    IX.   Principles of Design
    X.   Social Engineering
    XI.   Malware and viruses
    XII. Denial of Service Attacks and Defense
    XIII. Penetration Testing, Vulnerability Scanning, and Security Auditing