SYLLABUS

<u>Code</u>: NETW 238 <u>Title</u>: Hacker Techniques, Tools, and Incident Handling

<u>Division</u>: Business & Technology <u>Department</u>: Engineering and Technology

<u>Course Description</u>: This course provides students with the theory and skills required in the fields of ethical hacking and incident handling. Areas of instruction include various tools and techniques, vulnerabilities of operating systems, software and networks used by hackers to access unauthorized information, and techniques and technologies to defend against these attacks. This course also addresses incident handling methods used when information security is compromised. This course requires three hours of lecture and additional independent time as necessary to complete course projects and assignments.

<u>Prerequisites</u>: NETW 106, NETW 107, and NETW 110 (or two of the three and department permission)

Corequisites:

Prerequisites or Corequisites:

<u>Credits</u>: 3 <u>Lecture Hours</u>: 3 <u>Lab/Studio Hours</u>:

REQUIRED TEXTBOOK/MATERIALS:

See Instructor

ADDITIONAL TIME REQUIREMENTS: Additional lab time as required

COURSE LEARNING OUTCOMES: Upon completion of this course, students will be able to:

- Explain the ethical and legal implications of hacking and penetration testing.
- Identify common information gathering tools and techniques.
- · Analyze how port scanning and fingerprinting are used by hackers.
- Analyze how enumeration is used in conjunction with system hacking.
- Analyze wireless network vulnerabilities exploited by hackers.
- Perform web and database attacks.
- Identify and remove common types of malware from infected systems.
- Identify Trojans, backdoors, and covert communication methods.
- Perform network traffic analysis and sniffing by using appropriate tools.
- Analyze systems using Linux tools.
- Perform incident handling by using appropriate methods.
- Compare and contrast defensive technologies.

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GRADING STANDARD: The following scale will be used to determine the final course grade.

Α 90 - 10087 - 89 A-85 - 86 B+ 80 - 84 В 77 - 79 B-C+ 75 - 76 70 - 74 С 65 - 69 D F 64 and below

STUDENT PERFORMANCE EVALUATION

Students are expected to be present and punctual for all scheduled classes and labs. Students will be evaluated according to performance in the following categories:

- Assignments
- Mid-Term Exam
- Final Exam
- Assessments/Quizzes
- Lab Activities

The final grade will be determined by the following:

Assignments/Labs 30%
Assessments/Quizzes 10%
Mid-Term Exam 30%
Final Exam 30%

TOTAL 100%

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DEPARTMENT POLICIES:

INCOMPLETE

It is the student's responsibility to submit all classwork on a timely basis, and it is expected that all course requirements be completed by the last class meeting. In cases of hardship or emergency, your instructor may grant a grade of INC. In order to be considered for the grade INC, the student must have satisfactorily completed 80% of the course, have a passing test average, **and must meet with the instructor prior to the last class meeting** to discuss this option. Your instructor is under no obligation to grant an INC.

WITHDRAWING FROM CLASS

Last day to withdraw from a class with a grade W is the 12th week. While a W does not affect your GPA, it may have impact if you are receiving Financial Aid. Before withdrawing from any class, you should consult with your counselor, or a Financial Aid representative.

ACADEMIC INTEGRITY

Academic integrity is submitting one's own work, and properly acknowledging the work of others. Any violation of this principle constitutes academic dishonesty. Forms of academic dishonesty include:

Plagiarism

Submitting another's work, in whole or part, as one's own. This includes an examination, a computer program, a laboratory report, or a written assignment.

Facilitating Academic Dishonesty

Helping another commit an act of dishonesty, such as substituting for an examination or completing an assignment for someone else.

Cheating

Using or attempting to use unauthorized materials on an examination or assignment, such as using unauthorized texts or notes or improperly obtaining, or attempting to obtain, copies of an examination or answers to an examination.

Illegal System Access

Altering, transmitting, or permitting unauthorized individuals access to your account, or an attempt to alter or destroy system files on any server or computer. This also includes altering, transmitting, or attempting to alter or transmit academic information or records by unauthorized individuals.

Students that participate in dishonest activities

- will receive a 0 for that project, examination, or assignment
- may be given a grade of F for the course
- may be reported to the Dean for disciplinary action

For additional information, refer to the current Brookdale Community College Student Handbook.

COLLEGE POLICIES: For information regarding:

- ♦ Brookdale's Academic Integrity Code
- ♦ Student Conduct Code
- ♦ Student Grade Appeal Process

Please refer to the **BCC STUDENT HANDBOOK AND BCC CATALOG.**

NOTIFICATION FOR STUDENTS WITH DISABILITIES:

Brookdale Community College offers reasonable accommodations and/or services to persons with disabilities. Students with disabilities who wish to self-identify must contact the Disabilities Services Office at 732-224-2730 (voice) or 732-842-4211 (TTY) to provide appropriate documentation of the disability, and request specific accommodations or services. If a student qualifies, reasonable accommodations and/or services, which are appropriate for the college level and are recommended in the documentation, can be approved.

ADDITIONAL SUPPORT/LABS: Virtual Security Cloud Labs

This course has an accompanying Lab Manual that utilizes Virtual Security Cloud Labs. This virtual sandbox environment supports both onsite and online classrooms, and provides students with instant, unscheduled access to security-focused virtual lab environments from the convenience of a Web browser. These cloud-based labs reproduce the complex challenges of the real world without putting the institution's IT assets at risk.

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