Community College of Philadelphia
COMPUTER TECHNOLOGIES DEPARTMENT
CIS 274- Ethical Hacking & Penetration Testing

INSTRUCTOR INFORMATION

INSTRUCTOR: **Dr. B. Dike-Anyiam**

OFFICE LOCATION: C3-1H

OFFICE HOURS: Tue & Thu: 8:00-9:35 AM | Wed: 8:00 – 10:50 AM

EMAIL ADDRESS: bdikeanyiam@ccp.edu

OFFICE PHONE NUMBER: 215-496-6139

PREFERRED METHOD OF CONTACT: bdikeanyiam@ccp.edu

MESSAGES/EMAILS: The best way to contact me is **e-mail in Canvas**. Please do not send me duplicate emails throughout the day with the same questions. I answer all emails in the order received. I respond to all emails, so please wait for me to respond.

Note: I do not work on Weekends. Therefore, I urge you to read tasks details in Canvas as early as possible during the week and let me know if you have any questions. The earlier you read over the tasks details, the more time you would allow for me to answer any questions you may have.

Phone Call: If you need me to call you, please send me an email requesting the call. Make sure you include your phone number on the email. When placing calls to my students, I prefer to call from my CCP office phone or a private number.

COURSE INFORMATION

COURSE: CIS 274: Ethical Hacking & Penetration Testing

SEMESTER: Spring, 2018

CRN #: 19285

SECTION #: 001

CLASS MEETING DAY(S): TR

CLASS MEETING TIME: 1:00 PM - 4:00 PM

CLASSROOM LOCATION: Center for Business & Industry, **C3-18**

CREDIT HOURS: 4

COURSE DESCRIPTION: This course continues and expands students' understanding of issues related to cybersecurity. Students learn advanced skills, such as ethical hacking/penetration testing; systems/network defense and countermeasures. Students learn how to protect networks by utilizing the techniques that attackers use to compromise network and systems security.

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Students learn how to protect network/systems through hands-on lab activities. Topics include: hacker methodology and tools, how hackers operate, and setting up strong countermeasures to protect networks/systems.

COURSE Learning Outcomes and Methods of Assessment:

To ensure valid assessment of student learning and consistency across sections, exams will include common questions that provide direct evidence of student learning. The results of these assessments will be analyzed in accordance with the departmental assessment plan.

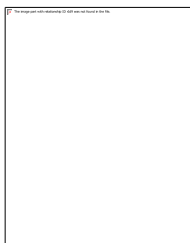| Student Learning Outcome

Upon successful completion of the course, students will be able to: |
| --- |
| 1. Evaluate and analyze network/system vulnerabilities and how to mitigate them. |
| 2. Describe penetration testing/hacking phases and methodology. |
| 3. Demonstrate the use of various security tools and techniques to perform penetration testing. |
| 4. Implement security plans to protect network/systems against attacks. |
| 5. Demonstrate knowledge of societal issues in ethical hacking, including legal and ethical issues. |

Course Materials Required:

TEXTBOOK/MATERIALS

1) **iLabs**: Certified Ethical Hacker (CEH) v9 by EC-Council and

2) Hands-On Ethical Hacking and Network Defense by Michael T. Simpson, Edition: 3rd, Copyright year: 2017
Print ISBN: 9781285454610, eText ISBN: 9781305480681

Publisher: Cengage Learning

- USB Flash Drive 8 GB and above

STUDENT ASSESSMENT _ GRADING POLICY

90-100	A
80-89	B
70-79	C
60-69	D
BELOW 60	F

Grading:

Grading	Points
Quiz/Exams	50%
Projects	50%
Total	100%

TENTATIVE COURSE OUTLINE
Subject to change at the professor's discretion

Week	Topic	Quiz/Exam/Project Due
W1	**Reading**: Ethical Hacking Overview **iLab**: iLabs Overview	
W2	**Reading**: TCP/IP Concepts Review **iLab**: Denial of Service; Session Hijacking	
W3	**Reading**: Network & Computer Attacks **iLab**: Malware Threats	**Quiz**
W4	**Reading**: Footprinting and Social Engineering **iLab**: Footprinting and Reconnaissance	
W5	**Reading**: Port Scanning **iLab**: Scanning Networks	**Project1**
W6	**Reading**: Enumeration **iLab**: Enumeration	

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W7	**iLab**: System Hacking	**Mid Term Exam**
W8	<mark>**Spring Break!**</mark>	
W9	**Reading**: Desktop and Server OS Vulnerabilities **iLab:** Buffer Overflow	**Project2**
W10	**Reading**: Embedded Operating Systems: The Hidden Threat **iLab**: Sniffers; Social Engineering	
W11	**Reading**: Hacking Web Servers **iLab**: Hacking Webservers; Hacking Web Applications; SQL Injection	
W12	**Reading**: Hacking Wireless Networks **iLab**: Hacking Wireless Networks	**Project3**
W13	**Reading:** Cryptography **iLab**: Cryptography	
W14	**Reading**: Network Protection Systems **iLab**: Evading IDS, Firewalls and Honeypots	
W15	**Final Exam <u>Week</u>**	**Final Exam**

<mark>**Note: **Reading**: Hands-On Ethical Hacking and Network Defense
iLab: Certified Ethical Hacker (CEH) v9</mark>

COURSE ACTIVITIES:

You are encouraged to contribute to discussions and to ask questions about the material. I recommend that you dedicate between 10 to 15 hours at least per week to work on this course.

- All Quiz, Tests, Exams, project, etc. have deadlines.

Student Expectations
- For each chapter discussed in class, you will be responsible for reading the entire chapter and completing assignments if any.
- **NO LATE / MAKE UP ASSIGNMENTS, NO MAKAEUP EXAMS**

CCP E-MAIL ACCOUNT
- Every student enrolled at the college should be able to access their college email account.
- Communication to the instructor for the course should be by way of your Canvas email/CCP.
- It is recommended that you check your email (CCP & Canvas) frequently as it allows you to stay informed of all college communications.

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- Please read the following information on how to login to CANVAS.

ACADEMIC DISHONESTY

Violations of academic integrity can include, but are not limited to, cheating and plagiarism. Cheating is an intentional effort at deception or gaining of an unfair advantage in completing academic work. Plagiarism is the act of appropriating the work of another person and passing it off as one's own. Any student who assists another in an activity that constitutes a violation of academic integrity is also responsible and accountable for such a violation. Please refer to: "**ACADEMIC INTEGRITY POLICY & PROCESS**" document in the file section of Canvas.

Violations of academic integrity will open a student to disciplinary action as described in the Student Code of Conduct.

ATTENDANCE

- Attendance to every class is **mandatory**
- Distance Education students are required to log into Canvas for a minimum of twice a week.
- Failure to keep up with your assignments (no class participation/lack of class participation) is also considered as being absent; therefore, just logging into Canvas and you do not submit your assignments, you will be marked absent for that week.
- One week of missing assignments is equivalent to **4** absences.
- **Unsatisfactory** attendance will be entered for all students who miss **2** sessions worth of assignments and/or have a class average less than **70%**.
- The school's policy is to drop students from class if they have 4 absences. I will adhere to the school's policy.

FYI

COURSE WITHDRAWAL/ INCOMPLETE GRADE / CLASS CONDUCT / ACCEPTABLE USE POLICY

- Course Withdrawal /Incomplete Grade:
- Extend to your fellow classmates as well as the instructor the courtesy of a positive attitude in the learning environment.
- All electronic devices are to be set to silent during lecture, test, exam, or class presentation.
- If you must take a call, please excuse yourself and handle your call in a courteous manner outside of the classroom.
- **No Head Phones Should Be Worn In Class!!!**
- **No Texting In Class!!!**

- If you are caught texting in class during a quiz or exam, I will assume you are cheating and you will receive a **ZERO** (0).
- **No Movie Watching In Class!!!**
- If you do not take the final exam or are caught cheating on the final exam, you will receive a failing grade for the final exam.
- Any form of cheating will result in a **ZERO** (0) for the assignment.
- Cheating will not be tolerated and will be reported appropriately.

CENTER ON DISABILITY

- Students who believe they may need an accommodation based on the impact of a disability should contact me privately to discuss their accommodation form and specific needs as soon as possible, but preferably within the first week of class. If you need to request reasonable accommodations, but do not have an accommodation form, please contact the Center on Disability, room BG-39, phone number 215-751-8050.
- Please be sure to contact the Center on Disability if applicable.

TUTORING SERVICES

- Mavis Pogue, CIS Instructor
- Central Learning Lab will offer workshops and individualized tutoring
- Bonnell Building B1-28

TO STUDENTS RECEIVING TITLE IV FINANCIAL AID FUNDS
Effective Fall 2000, students who receive title IV financial aid funds and who withdraw from all their classes before completion of 60% of the term, i.e., the 10th week (or its equivalent for summer terms) may be required to return all or a portion of their financial aid award. If it is determined that funds must be returned to the financial aid programs, students must make satisfactory payment arrangements within 45 days of notification or they become ineligible for further financial aid.

STUDENT ACADEMIC COMPUTER CENTER GUIDELINES **(Computer Labs)**
- No FOOD or DRINKS in Computer Labs or Computer Classrooms
- Please make sure that you adhere to all of the guidelines for using the computer.
- Be mindful of the hours and locations for all academic computer centers at the college.
- You can also pick up a handout of the guidelines at the check in desk.

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INCLEMENT WEATHER INFORMATION/ SCHOOL CLOSING

- Please make sure that you sign up for e2Campus. This an emergency notification service that will keep you updated to college closings as well as inclement weather closings. (Link provided on MyCCP homepage).
- Day class cancellation # 238
- Evening class cancellation # 2238

For more information on the degree programs & certificates offered by the Computer Technologies Department, visit the following links provided:

- Computer Information Technology-Information Technology
- Computer Science
- Network and Systems Administration Proficiency Certificate
- Computer Programming and Software Development Proficiency Certificate
- Receptionist and Office Clerk Proficiency Certificate