This course supports the objective assessments for the Outside vendor certification for EC-Council Certified Ethical Hacker. The course covers 6 competencies and represents 3 competency units.

**Introduction**

**Overview**
This course will help you acquire the skills necessary to protect an organization's information system from unauthorized access and system hacking. You will learn about security threats, penetration testing, vulnerability analysis, risk mitigation, business-related issues, and countermeasures.

An ethical hacker is someone who purposefully tries to gain unauthorized access to a network and computer system with the goal of exposing vulnerabilities. Companies want to complete these kinds of tests to gauge the security of their systems.

You will learn how to expose system vulnerabilities and learn solutions for eliminating and/or preventing them. You will learn how to apply your hacking skills on different types of networks and platforms. The skills you acquire will help you protect your employer's network and computer systems against potential vulnerabilities. You will learn about security threats, penetration testing, vulnerability analysis, risk mitigation, business-related issues, and countermeasures.

**Competencies**

This course provides guidance to help you demonstrate the following 6 competencies:

- **Competency 426.4.1: Ethics and Legality**
  The graduate analyzes ethical and legal issues related to the unauthorized or unwanted access into and of information assets, including types of hacking technologies and related skills.

- **Competency 426.4.2: Pre-Attack Planning**
  The graduate evaluates techniques used in footprinting and implements industry best practices to protect against this type of information asset vulnerability.

- **Competency 426.4.3: System Hacking**
  The graduate evaluates various network system hacking counter-techniques.

- **Competency 426.4.5: Hacking Web Servers**
  The graduate identifies known Web server vulnerabilities and demonstrates industry best practices to protect against this type of threat.

- **Competency 426.4.6: Web Application Vulnerabilities**
  The graduate identifies common web application vulnerabilities and uses industry best practices to protect against this type of threat.

- **Competency 426.4.7: Wireless Hacking**
  The graduate evaluates industry best practices for securing a wireless network, identifies the threats to wireless security, and associates threats with known
countermeasures.

Course Instructor Assistance
As you prepare to demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you.

Successful students report that working with a course instructor is the key to their success. Course instructors are able to share tips on approaches, tools, and skills that can help you apply the content you're studying. They also provide guidance in assessment preparation strategies and troubleshoot areas of deficiency. Even if things don’t work out on your first try, course instructors act as a support system to guide you through the revision process. You should expect to work with course instructors for the duration of your coursework, so you are welcome to contact them as soon as you begin. Course instructors are fully committed to your success!

Getting Started

Welcome to Ethical Hacking! To succeed in this course you will need to utilize the skills you acquired in previous courses within your degree path. To build and demonstrate competency in Ethical Hacking, do the following:

- Complete all course material, especially the iLabs.
- Pass the Boson practice exams with a 90% or higher score.
- Earn a passing score on the Certified Ethical Hacker certification exam. Exam passing scores are based on the knowledge and skills needed to demonstrate competence in the subject matter and the difficulty of the questions that are delivered to a candidate.

Learning Resources
The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to manually enroll in or independently acquire other resources. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

Manually Enrolled Resources

Take a moment to enroll in the learning resources listed in this section. To enroll, navigate to the “Learning Resources” tab, click the “Sections” button, and then click the “Enroll Now” button for each resource. Once your mentor approves your enrollment in the resource, you will receive an e-mail with further access instructions. Contact your mentor if you have questions.

EC-Council
Enroll in the following EC-Council resources:

- EC-Council iLearn Video Training Program CEH v9
- EC-Council iLabs CEHv9
• EC-Council CEHv9 Aspen eBook

**Boson Practice Exams**
It is recommended that you take one of the practice exams in learning mode to identify areas you need to study. Then use another one of them to gauge your final exam readiness after completing the course material. This is considered the pre-assessment.

To access the Boson Practice Exams, please enroll using the Learning Resources tab (horizontal navigation bar).

**Steps to Success**
1. Attend a FNV2 Introductory Webinar to meet the course instructor. The webinar schedule can be found in the CoS Community.
2. Focus on the following Course LR’s:
   2. Videos: The videos can be long but are informative. They will mention many tools but concentrate on the tools that are demonstrated. The others are mentioned as a way to show there are many tools that exist to do the same functions.
   3. iLabs: Make sure you do all the labs. The labs are task based so just follow the instructions. However, it is a good idea to go back into the lab and play with the tools that you used. Don’t worry you can’t break anything as you can rebuild the environment if there is a problem. Just play with the tool by going thru all the menus and entering criteria to see the result.
3. This course is designed to take 8 weeks with a lot of material to cover. If you do not have access to the Learning Resources (LR’s) contact your program mentor or write to learning@wgu.edu.
4. Once you are ready to schedule the exam just click on the “schedule now” button in your degree plan.
5. Visit the CoS Community, Announcement, Tips and Chatter. There is a great deal of information made available to you.

**Pacing Guide**
Complete all modules within the first 6 weeks of the course. In week 7 continue on to the Boston Practice Exam.

**DO NOT use Boson to learn the material as this will not help you pass the exam.**

**Week 1**
• Mod 1: Introduction to Ethical Hacking
• Mod 2: Footprinting and Reconnaissance
• Mod 3: Scanning Networks
Week 2

- Mod 4: Enumeration
- Mod 5: System Hacking
- Mod 6: Malware Threats

Week 3

- Mod 7: Sniffing
- Mod 8: Social Engineering
- Mod 9: Denial-of-Service

Week 4

- Mod 10: Session Hijacking
- Mod 11: Hacking Web servers
- Mod 12: Hacking Web Applications

Week 5

- Mod 13: SQL Injection
- Mod 14: Hacking Wireless Networks
- Mod 15: Hacking Mobile Platforms

Week 6

- Mod 16: Evading IDS, Firewalls, and Honeypots
- Mod 17: Cloud Computing
- Mod 18: Web Applications Cryptography

Week 7

- Boson Practice Exam

Week 8

- Certified Ethical Hacker Exam

Utilize the SAME Boson practice test in study mode and the mentor study guide to determine what you still need to learn.

Document the questions that you did not answer correctly and return to the learning resources for those specific subject areas. Repeat until comfortable with material.
Utilize a DIFFERENT Boson practice test in test mode to see if your score is in the 90s. If not, then repeat the process.

1. It is WGU policy to not provide the correct/incorrect answers to the pre-assessments or assessments. This is done to maintain the integrity of the exams.
2. Practice exams have about 80% of what is on the exam so make sure you archive in the 90s prior to referring for the exam.
3. Boson practice exam attempts are not limited but do not overuse. Use one in learn mode to identify study areas and after restudy then a different one in straight test mode. There are only 3 so use them wisely. DO NOT use them to learn the content since you will only learn the practice questions and answers.
4. Exam questions come from EC Council material so utilize their LRs for the best result. The exam is 125 multiple choice questions with 4 hours to complete. The questions are given in section and you must review the questions prior to leaving the section. A bottoms up approach is recommended – read the answers then read the question and eliminate what you can then read the scenario/exhibit. If you are not successful on your first attempt immediately contact the course instructor to coordinate your next attempt. MAKE SURE YOU ACCEPT THE LICENSE AGREEMENT OR YOU WILL TIMEOUT AND WILL NOT BE ABLE TO COMPLETE THE EXAM.
5. Once you are ready to schedule the exam just click on the “schedule now” button in your degree plan.
6. You will have to wait 14 days before scheduling a second attempt of the Assessment. Prior to approval for subsequent attempts, contact the Course Instructor to discuss a study strategy.

Practice Exams

You will use the materials in the Boson resource for this course.

Practice Exams
The Boson resource includes practice exams for you to take in order to prepare you for the assessment associated with this course.

Boson Practice Exams

Access and take the Boson practice exams for this course.

Note: You get access to these exams by following the enrollment instructions in the Learning Resource section if you have not already done so.

Final Assessment Tips

Test Information

Certified Ethical Hacker Exam 312-50 details:

- Number of Items: 125
- Earn a passing score on the Certified Ethical Hacker certification exam. Exam passing
scores are based on the knowledge and skills needed to demonstrate competence in the subject matter and the difficulty of the questions that are delivered to a candidate.

- Test Duration: 4 hours
- Test Format: Multiple choice
- Test Delivery: Web based

**First Attempt Checklist**

To make sure you have the best chance possible to pass the exam on your first attempt, the following steps should be completed successfully before you take it:

- Complete all course material, especially the iLabs.
- Pass the Boson practice exams with a 90% or higher score.

If this has been done, and you feel comfortable with all of the concepts presented, you are most likely ready to attempt the exam.

If you fail your first attempt, you will be required to contact the course instructor to see what went wrong and how you can prepare to ensure a successful second attempt. After determining you are ready, your course instructor will approve your request once to make another exam attempt.

**After the Assessment**

After completing the assessment for this course, follow the directions for submitting a score report on the "Following Outside Vendor Assessments" page.