# PORTFOLIO ASSESSMENT GUIDE for

# CYB 254 Networking IV

**What is a Portfolio**:

A Portfolio is a formal means of requesting assessment of your prior work/life experience from which you have developed sufficient college-level learning to earn credit for a specific class.

**Purpose of this Guide**:

This document is intended for student self-assessment purposes only. Review it carefully to determine if you are ready to write and submit a Portfolio for the course indicated above. Your self-assessment is not a guarantee that you will be awarded credit for the course. Faculty with expertise in the subject matter will evaluate whether your Portfolio provides sufficient evidence that you have demonstrated appropriate college-level mastery of the course content through experiential learning.

# General Guidelines:

* All work must be word-processed, except for documentation provided.
* Written portions should demonstrate college-level writing skills, including appropriate citations for any quoted or paraphrased material from other sources.
* Use the provided template, located on **page 3** of the guide, to format the portfolio appropriately.
* Your Portfolio will not be returned. Make copies of the contents before you submit. You may include clear copies of documentation and keep the originals.
* Submit your completed Portfolio, along with the approved Course Portfolio Assessment Form, to the Adult Learning Programs Office.

# Determination of Portfolio Assessment Outcome:

You will need to do the following to be awarded credit through Portfolio Assessment for this course:

* Provide all required documentation as listed within the template to support the Learning Outcomes.
* Possibly participate in an interview with the Portfolio evaluator.
* When evaluated, students must demonstrate experience or proficiency in >=70% to earn credit in the course.

|  |  |
| --- | --- |
| [Course Number]: Portfolio Assessment | |
| Skill/Outcome | Score |
|  |  |
| **Provide documentation of successfully passing the Certified Ethical Hacker certification exam** | 100 |
|  |  |
| In extenuating circumstances competencies can be met through extensive industry experience confirmed by employer |  |
| Total Score | /100 |



CREDIT FOR PRIOR LEARNING PORTFOLIO

[COURSE NUMBER AND TITLE]

[DATE]

BY

[YOUR NAME]

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Statement of Academic Honesty

The material contained in this Portfolio honestly and accurately reflects my life, learning, and work experience. I understand that the penalty for falsifying any information or documentation will result in an award of no credit for the Portfolio with no resubmission allowed and may result in other sanctions as described in the Student Code of Conduct.

Print Name LCSC ID Number

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

Course Description

**CYB-254 NETWORKING IV - 4 Credits**

In this course students are introduced to advanced computer networking concepts, theories, practices, and procedures. Students learn about the concepts of computer network defense and countermeasures. This course completely covers the techniques and methodologies related to network defense including knowledge and practical applications of firewalls and intrusion detection systems.The labs simulate real-world, hardware, software, and command-line interface environments.

Pre-Req: CYB 253

Learning Outcomes

Upon successful completion of this course, you should be able to demonstrate the following competencies:

1. Assig Different Classes of IP Addresses
2. View the MAC Address on Different Interfaces
3. Understand Protocols
4. Trace Route Using tracert
5. Use the netstat Command
6. Conduct a DoS Attack Using a SYN Flood
7. Conduct a DoS Attack Using the Smurf Attack
8. Defend Against a Buffer Overflow Attack
9. Defend against IP Spoofing
10. Perform Session Hijacking Using Burp Suite
11. Install Antivirus Software
12. Scan and Classify Different Types of Viruses
13. Create ACL in the Router
14. Use Windows Firewall
15. Create a DMZ Zone
16. Configure User Access Control Setting
17. Configure a Linux Firewall Using the Iptable
18. Use the CISCO ASA Firewall
19. Intercept Packets
20. Configure Snort
21. Set Up a Honeypot
22. Use a Symmetric Algorithm
23. Use an Asymmetric Algorithm
24. Observe a Digital Certificate
25. Create a PGP Certification
26. Use the John the Ripper Tool
27. Use Rainbow Tables
28. Hide Text Using Steganography
29. Set Up a VPN Server with Windows Server 2016
30. Create an L2TP VPN Using Openswan
31. Configure IPSec
32. Configure a User Account
33. Set Security Policies
34. Use Registry Editor
35. Configure the Security Setting in a Popular Browser
36. Use Encryption File System
37. Restrict the Null Session
38. Shut Down a Service in Windows
39. Create a Remote Access Trojan (RAT)
40. Perform Malware Scanning
41. Use the NetBus Application
42. Use eLiTeWrap
43. Use an Anti-Spyware Tool
44. Define User Access Control
45. Manage a User Using an Existing Security Policy
46. Examine Security Policy
47. Create a Security Policy
48. Filter Ports Using Windows Firewall
49. Use the Advanced IP Scanner
50. Conduct Vulnerability Scanning Using Nessus
51. Use MBSA
52. Configure Windows Update
53. Observe the Security Event Log
54. Conduct Passive Scanning Using Netcraft
55. Conduct Active Scanning Using Nsauditor
56. Use ShareEnum
57. Perform Active Scanning Using Nmap
58. Crack Windows Password Using Ophcrack
59. Perform the SQL Injection
60. Observe the Windows Log
61. Retrieve Deleted Files Using Disk Digger
62. Perform Logical Imaging Using AccessData FTK Imager
63. Use BitLocker in Windows 10
64. Use EtherDetect

Topics Covered:

* Introduction to Network Security
* Types of Attacks
* Fundamentals of Firewalls
* Firewall Practical Applications
* Intrusion-Detection Systems
* Encryption Fundamentals
* Virtual Private Networks
* Operating System Hardening
* Defending Against Virus Attacks
* Defending Against Trojan Horses, Spyware, and Adware
* Security Policies
* Assessing System Security
* Security Standards
* Physical Security and Disaster Recovery
* Attack Techniques
* Introduction to Forensics
* Cyber Terrorism

Educational Goals

**Goals, Motivation, and Time Frame**

What are your goals? What are the reasons (professional and personal) you are pursuing your goals? What is a realistic time frame for completing your education?

**Prior Learning to Goals**

How will the prior learning credit you are requesting fit into your future educational and career goals?

Chronological Resume

Include a chronological resume that will support your request for prior learning. List all jobs held, including volunteer work, as they relate to the course that you are trying to receive credit. List duties, skills and expertise used in performing job tasks. When possible, use language similar to that used in the Learning Outcomes for the course.

Examples of Experience:

* Employment, Work Experience
* Workshops, Webinars, Training, Seminars, Professional Development
* Volunteer Activities, Community Service, Committees, Groups
* Military Experience, Occupations, Training
* Licenses, Certificates, Industry Credentials
* Non-credit Courses
* Publications

Learning and Experience Autobiography

The autobiography will serve as an introduction to the evaluator and help them understand the context of your learning for the particular course you are requesting. It is a complete picture of you and your experiences as it relates to the course for which you are creating this portfolio. Relate the relevant experiences to the course in a general explanation (Specifics will be included in the Acquired Learning and Knowledge Narrative). Demonstrate why you have selected this particular course and detail your work and life experiences using your resume as a guide.

This should be two+ pages and summarize the significant learning experiences in your life and describe how your experiences will validate your knowledge of the course content and meet the course outcomes being petitioned for credit.

Acquired Learning and Knowledge Narrative

The narrative is a detailed explanation of how your activities and the resulting competencies were achieved. This is to complement your resume and autobiography. Be sure to link your accomplishments to the course learning outcomes. This will be similar to your autobiography but will detail your chronological work and life experience history while focusing on the things you have already learned through training and experiences, as it relates to your target course.

Note that a key goal of this section is the learning process itself as you reflect on how your experience relates to key concepts within the learning outcomes in the target course. Clearly focus on the learning objectives (what you know and can do) rather than the experience.

For each experience indicated within the Portfolio, the student must:

* Label each heading, Learning Outcome 1, Learning Outcome 2, etc.
* Include the experience; time spent in activity; description of duties and activities.
* Describe the learning and how it relates to the Learning Outcomes for the course.
* Describe how the learning was acquired.
* Provide documentation as evidence of the experience in relation to the course learning outcomes, and as an indication of the level and appropriateness of content.
* Describe how this experience has influenced and impacted other areas of your life.

This will be 2+ pages in length. Make sure it is clear, concise, and free of errors in sentence structure, grammar, and spelling. It needs to demonstrate college-level writing and critical thinking.

Bibliography

**This is not required.** The bibliography will include any reading done on the course subject. If you have studied manuals or used other texts to gain your prior learning, include them here. References should be cited in American Psychological Association (APA) style, but your instructor may suggest another format.

Documentation

Each of your experiences and competencies will require verification (evidence). This evidence can take several forms:

* Completion of training programs, workshops, seminars, etc., may be verified through:
  + Certificates
  + Personnel records
* Performance reviews showing competencies
* Job descriptions
* Transcripts
* Samples of work
* A videotape of your speech, theatre work, or music recital
* Licenses
* Honors or Awards
* Samples of your painting, drawing, photography, or ceramics for a studio art course
* Certificates of attendance
* Letters of verification listing proven competencies from instructors or employers
* Products designed or created by you
* Military records

Each piece of documentation for a workshop or training program must be accompanied by a description page of content for each workshop, training program, or seminar and must show how the evidence relates to the course learning outcomes.