

ARIZONA WESTERN COLLEGE SYLLABUS

PIT 143 FORTINET CERTIFIED SOLUTION SPECIALIST

Credit Hours:   3   Lec   2   Lab   2  

PREREQUISITE:           PIT           142

COREQUISITE:

COURSE DESCRIPTION

This course leverages expert-level Fortinet network security technologies to offer students immersive, hands-on lab experiences, allowing them to apply their theoretical knowledge in practical settings. Students will focus on network security design, configuration, and troubleshooting for complex networks. Students will gain extensive experience in handling intricate network security challenges. They will learn advanced techniques for designing and implementing comprehensive security architectures, configuring complex network security policies, troubleshooting intricate network security issues, and exploring topics such as advanced threat protection, network segmentation, and security event analysis. Students will develop expertise in network security concepts by actively engaging with Fortinet technologies in real-world scenarios. Students will possess the skills necessary to be well-prepared to pursue the Fortinet Certified Engineer Exam.

1. COURSE GOAL

- 1.1 Enable students to analyze organizational security requirements and design comprehensive Fortinet-based solutions that address performance, scalability and security needs.
- 1.2 Build expertise in implementing and optimizing advanced security services, access controls and segmentations strategies in enterprise and cloud environments.
- 1.3 Prepare students to function in senior technical roles by applying best practices, operational judgement and strategic thinking to cybersecurity solution management.
- 1.4 Prepare students for the Fortinet Certified Solution Specialist Cybersecurity written and practical exams.

2. OUTCOMES

Upon satisfactory completion of this course, students will be able to:

- 2.1 Design, configure, install, and troubleshoot a comprehensive network security solution in a live environment.
- 2.2 Deploy and integrate endpoint protection and management systems
- 2.3 Automate incident response and configuration management
- 2.4 Integrate secure cloud and hybrid security solutions
- 2.5 Demonstrate knowledge of Fortinet API configuration and usage.
- 2.6 Enforce Zero-Trust security frameworks to safeguard data and applications across distributed networks.
- 2.7 Correct hardware production selection based on design.
- 2.8 Use dashboards, logs and analytic tools to track performance and detect anomalies across distributed systems.
- 2.8 Describe and design hardware accelerated networks with FortiGate devices.

3. METHODS OF INSTRUCTION

- 3.1 Lecture
- 3.2 Multi-media Presentations
- 3.3 Group Discussions

4. LEARNING ACTIVITIES

- 4.1 Group Discussions
- 4.2 Digital Presentations
- 4.3 Interactive Virtual Practice

5. EVALUATION

- 5.1 Quizzes/Exams
- 5.2 Assignments
- 5.3 Participation

6. STUDENT RESPONSIBILITIES

- 6.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 6.2 Classroom Assignments: Students are responsible for work missed and for completing all work before the next class meeting. Students are responsible for participating in all oral drills and for taking all exams.
- 6.3 If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. Students who are not attending as of the 45th day of the course may be withdrawn by the instructor. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade.
- 6.4 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through AccessABILITY Resource Services (ARS). ARS provides reasonable and appropriate accommodations to students who have documented disabilities. It is the responsibility of the student to make the ARS Coordinator aware of the need for accommodations in the classroom prior to the beginning of the semester. Students should follow up with their instructors once the semester begins. To make an appointment call the ARS front desk at (928) 344-7674 or ARS Coordinator at (928) 344-7629, in the College Community Center (3C) building, next to Advising.
- 6.5 Academic Integrity: Any student participating in acts of academic dishonesty including, but not limited to, copying the work of other students, using unauthorized “crib notes”, plagiarism, stealing tests, or forging an instructor’s signature—will be subject to the procedures and consequences outlined in AWC’s Student Code of Conduct.
- 6.6 Textbooks and materials: Students are required to bring notebook or looseleaf book, pens, pencils, dictionaries, and purchase textbook required for class.
- 6.7 Arizona Western College students are expected to attend every class session in which they are enrolled. To comply with Federal Financial Aid regulations (34 CFR 668.21), Arizona Western College (AWC) has established an Attendance Verification process for "No Show" reporting during the first 10 days of each semester.

Students who have enrolled but have never attended class may be issued a “No Show” (NS) grade by the professor or instructor and receive a final grade of “NS” on their official academic record. An NS grade may result in a student losing their federal financial aid.

For online classes, *student attendance in an online class is defined as the following* (FSA Handbook, 2012, 5-90):

- Submitting an academic assignment
- Taking an exam, an interactive tutorial or computer-assisted instruction
- Attending a study group that is assigned by the school
- Participating in an online discussion about academic matters
- Initiating contact with a faculty member to ask a question about the academic subject studied in the course