Arizona Western College
Syllabus

PIT 110 Cybersecurity
Credit Hours: 9 cr, 6 lec, 6 LAB
PREREQUISITE: PIT-100

COURSE DESCRIPTION

An introduction to the field of Cybersecurity which will teach learners how to identify common risks, threats, and vulnerabilities, as well as the techniques to mitigate them. This course will prepare learners for entry-level cybersecurity roles by allowing hands-on experience with industry recognized tools including Python, Linux and many other security tools like Security Information and Event Management (SIEM) programs.
This Course is Open Entry/Open Exit (OE/OE).

1. COURSE GOALS
   This course provides the skills that will be needed for an entry-level job in cybersecurity. Learns will use Python to program cybersecurity tasks, detect and respond to incidents using Intrusion Detection Systems (IDS), perform package capture and analysis, and extrapolating data with SQL.

2. OUTCOMES
   Upon Satisfactory completion of this course, students will be able to:
   2.1 Describe and demonstrate Network Security and how to protect networks from unauthorized access.
   2.2 Properly identify Incident response, indecent response techniques, indecent analysis, incident reporting and the proper tools to use.
   2.3 Describe the different ways to encrypt data as well as different encryption methods.
   2.4 Identify and address different vulnerabilities, patch management, assessment, and remediation techniques.
   2.5 Describe the different between identity and access management including LDAP, Active Directory and Single Sign-On (SSO).
   2.6 Describe cloud security and address cloud architecture and infrastructure, service models and security controls.

3. METHODS OF INSTRUCTION
   3.1 Lecture
   3.2 Multi-media Presentations
   3.3 Hands on activities

4. LEARNING ACTIVITIES
   4.1 Hands on Activities
   4.2 Portfolios
   4.3 Preparing for Cybersecurity Jobs

5. EVALUATION
   5.1 Quizzes/Exams
   5.2 Assignments
   5.3 Participation posts
   5.4 Hands-on projects

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 documents 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 (3) building, next to Advising.
   6.5 Academic Integrity: Any student participating in acts of academic dishonestly 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 the required textbooks 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.