

COCONINO COMMUNITY COLLEGE

COURSE OUTLINE

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Fall 2019

A. **Identification:**

1. Subject Area: Computer Information Systems
2. Course Number: CIS 261
3. Course Title: Cybersecurity Fundamentals
4. Credit Hrs: 3
5. Catalog Description: Prerequisite: CIS 237. This course provides students a comprehensive framework of practices for assuring information security. Students will learn how functions within cybersecurity help support and secure an organization. Content is interwoven with case studies of organizations experiencing the pitfalls of cybersecurity. Three lecture.

B. **Course Goals:**

Students will learn how the various roles and functions within cybersecurity practice can be combined and leveraged to produce a secure organization. Contemporary cybersecurity breaches will also be examined, and students will work on collaborative projects to better understand new and emerging threats to organizations.

C. **Course Outcomes:**

Students will be able to:

1. discuss and give examples of cyberstalking, fraud, and abuse
2. assess and prioritize potential threats to a network
3. explain hacking techniques
4. describe industrial espionage in cyberspace
5. explain the basics of encryption
6. discuss computer security technology policies
7. demonstrate use of network scanning and vulnerability scanning
8. explain what cyber terrorism is and the basics of information warfare
9. identify information relevant to an investigation online
10. explain computer forensics

D. **Course Outcomes Assessment:**

Must include:

1. Exams
2. Homework
3. Projects/Labs
4. Group Project

E. **Course Content:**

Will include:

1. Introduction to Computer Security
2. Networks and the Internet
3. Cyberstalking and Fraud
4. Denial of Service Attacks
5. Malware
6. Techniques Used by Hackers
7. Industrial Espionage in Cyberspace
9. Encryption
10. Computer Security Technology
11. Security Policies
12. Network Scanning and Vulnerability Scanning
13. Cyber Terrorism and Information Warfare
14. Cyber Detective
15. Introduction to Computer Forensics