

**JEFFERSON COLLEGE**  
**COURSE SYLLABUS**

**CIS260**  
**INFORMATION SYSTEMS SECURITY**  
4 Credit Hours

Revised by: Douglas Hale  
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## CIS260 Information Systems Security

### I. CATALOGUE DESCRIPTION

- A. Pre-requisites:
1. Reading Proficiency
  2. CIS150 Introduction to Computer Support, with a Grade of “C” or Better
  3. CIS147 Networking I, with a Grade of “C” or Better
- B. 4 Credit Hours
- C. Information Systems Security trains students in network security; compliance and operational security; threats and vulnerabilities; application, data and host security; access control and identity management; and cryptography. The curriculum maps directly to each of the CompTIA Security+ exam objectives. (F)

### II. EXPECTED LEARNING OUTCOMES/CORRESPONDING ASSESSMENT MEASURES

Implement network security	Hands-On Exercises Quizzes Exams Certification Exam
Execute appropriate compliance and operational security controls and procedures	Hands-On Exercises Quizzes Exams Certification Exam
Implement assessment tools and techniques to discover, analyze, and differentiate among the types of security threats and vulnerabilities	Hands-On Exercises Quizzes Exams Certification Exam
Explain the importance of application and data security and carry out appropriate procedures to establish application and data security	Hands-On Exercises Quizzes Exams Certification Exam
Explain the fundamental concepts and best practices related to authentication, authorization, and access control and implement appropriate security controls when performing account management	Hands-On Exercises Quizzes Exams Certification Exam
Explain and demonstrate general cryptography concepts by using and applying appropriate cryptographic tools and products	Hands-On Exercises Quizzes Exams Certification Exam

### III. OUTLINE OF TOPICS

- A. Introduction to Security
- B. Malware and Social Engineering Attacks
- C. Application and Network Attacks
- D. Vulnerability Assessment and Mitigating Attacks
- E. Host, Application, and Data Security
- F. Network Security
- G. Administering a Secure Network
- H. Wireless Network Security
- I. Access Control Fundamentals
- J. Authentication and Account Management
- K. Basic Cryptography
- L. Advanced Cryptography
- M. Business Continuity
- N. Risk Mitigation

### IV. METHOD(S) OF INSTRUCTION

- A. Video
- B. Lecture
- C. Discussion
- D. Simulations
- E. Hands-On Exercises

### V. REQUIRED TEXTBOOK(S)

Mark Ciampa, *Security+ Guide to Network Security Fundamentals* (Current Edition),  
Cengage

## VI. REQUIRED MATERIALS

USB Removable Storage Device (Flash Drive)

## VII. SUPPLEMENTAL REFERENCES

None

## VIII. METHODS OF EVALUATION

A.	Participation	15%
B.	Hands-On Exercises	40%
C.	Quizzes/Exams	40%
D.	Certification Exam (Pass/Fail)	5%

## IX. ADA AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Technology Center 101; phone 636-481-3169).

## X. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see College website, <http://www.jeffco.edu>).

## XI. ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

## XII. OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in academically related activities such as reading, studying, and completing assignments. Specifically, time spent on academically related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.