

San José State University
Aviation and Technology Department
TECH 179 Sec 01, Cyber Security System Management, Spring 2026

Course and Contact Information

Instructor:	Sam Bowne
Office Location:	Virtual at https://twitch.tv/sambowne
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Email:	Sam.bowne@sjsu.edu
Office Hours:	Monday through Thurs online 7:30-8:30 pm
Class Days/Time:	Lecture M/W 7:30 to 8:45 AM
Classroom:	ENG490 Canvas and the Fortinet Training Institute .

Course Description

Key issues associated with protecting information assets. Levels of protection and response to security incidents. Planning for security and management of the system. Application of software, cryptography, encryption methods. Mobile and cloud systems security.

Program Learning Outcomes

1. Demonstrate strong communication, critical thinking, and interpersonal skills.
2. Use skills in team development, dynamics, and management to work as team players.
3. Demonstrate ethical behavior and concern for colleagues, society, and the environment.
4. Demonstrate leadership skills for a technology professional.
10. Apply cybersecurity techniques to protect networks from attacks.

Course Learning Outcomes

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

1. Define information security and its need.
2. Describe the different management functions with respect to information security
3. Describe the Legal, Ethical, and Professional Issues in Information Security
4. Describe and use the tools and processes for Risk Management
5. Describe Incident Response and Contingency Planning
6. Describe and use the key Security Technology: Access Controls, Firewalls, and VPNs
7. Describe and use Cryptography: Public-Key Cryptography and Message Authentication
8. Articulate the key security technology such as intrusion detection and prevention systems and security tools.

Required Texts/Readings

Textbook: This course uses online material, which is available through the Fortinet Training Institute. Your instructor will give you the login information in class and on Canvas.

Course Requirements and Assignments

Labs/Activities

All assignments with description, due dates, and submission guidelines will be posted on Canvas

Final Examination or Evaluation

The final exam will be comprehensive, covering all material presented in class. There will be no make-ups for missed exams, except for medical or other reasons outside the student's control, and such must be documented by written notice.

Grading Information

- For the Midterm and Final in-class Exams, the possession of any reference material during an exam, not expressly permitted by the Instructor, or any other form of cheating or attempts at cheating, may result in a loss of all points for that exam.
- Students MUST get a grade of 60% or better on the Final Exam to get a 'C' or better.
- Students must take the Final exam to pass the class.

Determination of Grades	Grading	Percentage		
Your grade will be based on the following activities	A plus	Breakdown:	C plus	79% - 77%
· Homework and Activities 15%	A	99% - 97%	C	76% - 74%
· Hands-on Assignments 25%	A minus	96% - 94%	C minus	73% - 70%
· Midterm Exam (Quiz Total) 30%	B plus	93% - 90%	D plus	69% - 67%
· Final Exam (Dec 15) 30%	B	89% - 87%	D	66% - 64%
	B minus	86% - 84%	D minus	63% - 60%
		83% - 80%	F	below 60%

Classroom Protocol

Please participate, attend all classes to the extent possible, and connect to class instruction via ZOOM on time. University and Department guidelines require a serious and compelling reason to drop a course. On behalf of all students during class, please ensure you remain muted during class instruction if there is excessive background noise in your area. If you have a question or comment, you can either raise your hand or enter your question into the 'Chat' function. Class participation, asking questions, and offering your own thoughts and opinions are strongly encouraged.

University Policies (Required)

Per University policies F13-12 (Technology Intensive, Hybrid, and Online Courses and Programs) and S12-7 (Consent for Recording of Class and Public Sharing of Instructor Material)

Use of Camera in Class - The instructor does require students to log into Zoom and to turn on their camera during the Midterm and Final hands-on exams. Contact the instructor if different accommodation is required.

Zoom Recording of Classes – Instructor intends to record each synchronously attended lecture (as identified in the course schedule. University policy (S12-7) requires consent from all individuals who will appear in a class recording. If you do not wish to be identified in a class recording, please let the instructor know and accommodation will be arranged.

Per University Policy S16-9 (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant information to all courses, such as academic integrity, accommodations, dropping and adding, consent for recording of class, etc. is available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/> Make sure to review these university policies and resources with students.

Important Dates:

<i>Last day to drop the course without penalty:</i>	<i>Tuesday, 02/17/2026</i>
<i>Last day to add the course without penalty:</i>	<i>Tuesday, 02/17/2026</i>
<i>Last day of instruction:</i>	<i>Monday, 5/11/2026</i>
<i>Study day before Finals:</i>	<i>Tuesday, 5/12/2026</i>