

Course Outcomes Guide

Course Title: IST 160 Fundamentals of Security

Course Instructor(s): Steve Shank/Rob Foth

Programs: Network Administration, Cyber Security, Forensics

Expected Learning Outcomes

- Think critically
- Communicate effectively with both verbal and written forms
- Perform and share cooperatively in team projects
- Review and practice computer and network etiquette and ethics found in working environments
- Administer and troubleshoot a network infrastructure
- Evaluate best practices in security concepts to maintain confidentiality, integrity and availability of computer systems

Assessment (How do students demonstrate achievement of these outcomes?)

Satisfactory scores on exams and projects.

Satisfactory scores on exams modeled after industry standard certification exams. Models are developed from the following certification exams: Security+..

Completion of Security+ lab sim by TestOut. This includes lectures, labs, and exams.

Participation in class discussion boards. Each student creates a new thread on the current topic and also comments on another student's thread.

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Validation (What methods are used to validate your assessment?)

1. Approval of Information Systems Technology Advisory Council

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2. Tests comparable to Industry Standard Certification Exam.
3. Faculty Review
4. CyberWatch approved curriculum
5. National Security Telecommunications and Information Systems Security organization approved HCC security curriculum for standards 4011 and 4013
6. Department of Homeland Security and NSA awarded HCC security curriculum CAE (Center of Academic Excellence) status.

Results (What do the data show?)

Since the 2010 fall semester a total of 148 students have taken IST160 Fundamentals of Security.

126 (85%) of the students completed the course and 119 (80%) were successful.

The grade distribution is as follows:

A	79	53%
B	25	15%
C	15	10%
D	7	5%
F	17	12%

There was 0 audit and 5 withdrew from the course.

Students successfully participate in the Collegiate CyberDefense Competition (CCDC)

Feedback from students going on to take the CompTIA Security+ exam say the labsim by TestOut is very helpful in passing the exam.

The Advisory group advises to incorporate more practical concepts into the curriculum when possible.

Follow-up (How have you used the data to improve student learning?)

We have selected a textbook that maps directly to the CompTIA Security+ Exam.

Security+ lab sim from TestOut has been updated and added to the curriculum.

Practical hands-on lab assignments continue to be added to the curriculum

Students maintain log reflecting what they learned during week.

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(To do)

Remote lab called NetLabs has been ordered. This will provide students the opportunity to remotely access the systems of routers and switches that are real and virtual.

A Dept of Interior grant has been awarded to Moraine Valley Community College to increase the number of courses available to schools who purchase NetLabs. We will pilot our NetLabs program with IST 160 Security+ content.

TestOut is developing curriculum named Security Pro. This is mapped to the CompTIA Security+ exam but also includes course management tools that will allow us to track student results on this testing. Currently CompTIA does not forward test results due to privacy and not all students take the certification exam.

Budget Justification

(What resources are necessary to improve student learning?)

PC lab hardware; switches, routers, projection unit, cabling, tools, printers, PCs, servers

Security hardware and software

Course Management software

Classroom Management system software

Computer based Portfolio system