Course Title: IST 154 Networking Basics

Course Instructor(s): Steve Shank

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?)
 • *Chapter Quizzes* - students successfully complete quiz questions from textbook publisher

 • *Labs.* With a partner complete activities that require analysis and application of current network practices

 • *Midterm/Final*

 • *LabSim.* Students complete various activities that include lectures, quizzes, and labs that are mapped to the CompTIA Net+ objectives. (CompTIA Net+ is an Industry Standard Network certification.

 • *CompTIA Net+ Domain Exams –* students achieve successful score on a standardized network exam

Course Outcomes Guide

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

1. Approval of Information Systems Technology Advisory Council

2. Tests comparable to Industry Standard Certification Exam.

3. Faculty Review

4. TestOut has developed LabSim, a robust, complete solution that allows students to learn tasks in a fully operational simulation. LabSim's online labs give you opportunities to learn valuable hands-on experience with hardware, software, and networking labs.

5. Textbook publisher (Pearson) maps content to the CompTIA Net+, an Industry Standard Certification Exam

Results (What do the data show?)
Since the 2011 summer semester a total of 263 students have taken IST154 Network Fundamentals.

216 (83%) of the students completed the course and 208 (80%) were successful.

The grade distribution is as follows:

A	123	47%
B	54	21%
C	31	12%
D	7	3%
F	28	11%

There was 1 audit, 2 incomplete and 17 withdrew from the course.
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Follow-up (How have you used the data to improve student learning?)
80% of students completing course requirements successfully complete coursework

Student feedback from students in other program courses state IST 154 is helpful in their understanding and completing of later courses.

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

Place a greater focus on completing simulated CompTIA Net+ exams and the Domain practice exams. These are replacing the Transcender exams. Students that have taken the CompTIA

Net+ certification exam have stated that the TestOut practice has been more valuable than the Transcender practice questions.
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The course has returned to the text published by Cengage and authored by Tamara Dean. This textbook is a leader in presenting network concepts and mapping it's objectives to the CompTIA Net+ exam.

Incorporated virtual Netlab labs into curriculum. These labs were developed by the Center for Systems Security and Information Assurance (CSSIA). The creations of these labs was funded by the National Science Foundation's (NSF) Advanced Technological Education (ATE) program Department of Undergraduate Education (DUE) Award No. 0702872 and 1002746; Center for Systems Security and Information Assurance (CSSIA) is an entity of Moraine Valley Community College.

 (To do)

IST 154 is a course in several programs and is frequently taught. Several instructors now teach this course. Work continually needs to be done to more closely follow a set standard for the course.

Customize student pods into the Netlabs product at HCC. Through the implementation of virtualization provide the students with a rich opportunity to work in a real world environment on a 24/7 basis.

Budget Justification
(What resources are necessary to improve student learning?)

PC lab, projection unit, cabling, tools, printers, PCs, servers
Simulation software, Virtual PC licenses.
LabSim Software.
Course Management software
Classroom Management system software