

Program Outcomes Guide

Program Title: IST Networking

Program Team: Steve Shank/Jack Drooger/Tatyana Zidarov

Expected Learning Outcomes

- Think critically
- Communicate effectively with both verbal and written forms
- Perform and share cooperatively in teams or groups
- 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?)

Think Critically

Satisfactory scores on exams modeled after industry standard certification exams. Models are developed from the following certification exams: IC³, CompTia A+, CompTia Net+, CompTia, Security+, CEH, and Cisco CCENT.

Perform successfully on exams and lab assignments

Analyze packets captured in network traffic

Communicate effectively with both verbal and written forms

Develop and complete an individual project

Perform as team member in a group project

Report on a journal submission within the networking field

Discuss concepts and ideas in a class discussion board

Prepare a presentation to deliver to a group

Summarize activities and/or topics learned produce a report

December 2015

Perform and share cooperatively in teams or groups

Demonstrate working as a team member by participating in a of group project

Participate in classroom team discussion/activities

Review and practice computer and network etiquette and ethics found in working environments

Discuss concepts and ideas in a class discussion board

Report on a journal submission within the networking field

Administer and troubleshoot a network infrastructure

Completion of vmware (virtual) project

Evaluate best practices in security concepts to maintain confidentiality, integrity and availability of computer systems

Report on a journal submission within the networking field

Develop and complete an individual project

Completion of group project

Successful completion of exams and lab projects

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

1. Program maps to the National Security Telecommunication and Information Systems Security (NSTISSI) 4011 and 4013 Standards.
2. Program meets Center for Academic Excellence 2 year schools (CAE@Y) standards established by the National Security Agency (NSA) and the Department of Homeland Security (DHS)
3. Approval of Information Systems Technology Advisory Council
4. Tests modeled after industry standard Certification Exams
5. Network I, II, curriculum written by Cisco Academy
6. IST 261 curriculum written by Microsoft
7. Faculty Review
8. Textbook Publishers

Results (What do the data show?)

90% of students completing course requirements successfully complete coursework

Increase numbers of students

Greater participation in ITA club activities

More students graduating

Greater number of students enrolling in Bachelor's Degree programs.

CyberWATCH suggests inclusion of case studies into curriculum

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

In 2012 the IST networking program which had been comprised of two tracks; networking technology and network security became one track named Networking Technology. A separate program named Cyber Security was created.

The IST advisory group, while recognizing the growing interest in Cyber Security, wanted to continually develop the Network Administration program.

The Network Administration curriculum was streamlined to 60 credits from 68 credits in keeping with the national trend to increase the number of program “completers” and produce graduates in a timelier manner.

Based on the IST Advisory group suggestions, the coursework continued to add more student participation in group projects, continue to map course objectives to industry certification when possible and to provide students with more opportunity to develop and deliver presentations.

Internships are no longer required as part of the program due to institutional concerns. However, when possible, internships are strongly suggested for students within the program.

(To Do)

Continue enhancing and updating labs to include more hands-on activities

Include reading, writing, research and participation in all classes

Create student satisfaction surveys

Identify exams modeled after industry standard examinations to offer in a pre/post scenario

Examine additional delivery systems to enhance learning.

Enlist guest speakers for classes

Continue to encourage successful internships

Budget Justification

December 2015

(What resources are necessary to improve student learning?)

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

Security hardware and software is more easily established through vmware

Simulation software, Virtual PC licenses.

Lab Management software