

Course Outcomes Guide

Course Title: IST 253 TCPIP

Course Instructor(s): Steve Shank

Programs: IST Networking Track I, IST Networking Track II

Expected Learning Outcomes

- Think critically
- Communicate effectively with both verbal and written forms
- Produce a presentation utilizing office productivity software
- Perform and share cooperatively in team projects
- Review and practice computer and network etiquette and ethics found in working environments
- Administer a network infrastructure
- Troubleshoot problems in an existing network environment
- Evaluate and implement new and future technologies into current system
- Install, configure, use and manage TCP/IP on a working network
- 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 CyberWatch curriculum.

Hands-on lab assignments that analyze the various protocols in the TCP/IP family. Wireshark is an open source program that allows users to analyze network traffic which is utilized in this course.

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

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1. Approval of Information Systems Technology Advisory Council
2. CyberWatch curriculum
3. Faculty Review

Results (What do the data show?)

100% of students completing course requirements successfully complete coursework

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

100% of students completing course requirements successfully complete coursework

Have added hands-on exercises incorporating the open source program Wireshark. This includes analysis of protocols such as DNS, HTTP, TCP, IP, ICMP, ARP, and RARP

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

Simulation software, Virtual PC licenses.

Course Management software

Classroom Management system software