Course Outcomes Guide

Course Title: IST 154 Networking Basics

Course Leader: Karen Weil-Yates

Programs: IST Computer Support Services, IST Networking Track I, IST Networking Track II, Forensics, CYB Cybersecurity

Expected Learning Outcomes

- *Students will be able to demonstrate knowledge of network architecture through drawing and site assessment through written documentation*
- *Students will be able to install, configure, use and manage TCP/IP on both wired and wireless Per-to-peer networks*
- *Students will be able to use critical thinking skills in troubleshoot problems in an existing network environment*
- *Students will be able to prepare for CompTIA's vendor-independent networking certification exam, Network+*
- *Students will take CompTIA Net+ certification*

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

Students are required to

- Complete LabSim Chapters (online textbook with video lectures and interactive labs and quizzes)
- Complete LabSim Domain exams (5)
- Complete hands-on activities (on-line students are limited) and/or NetLabs (interactive Virtual labs)
- Take Transcender certification preparation exam for Net+
- Take certification exam: CompTIA Net+.

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

This course's assessments were validated at the by advisory committee members as needed. Course content is mapped to Net + Certification Exam objectives (additional objectives are also included). Students are required to take a nationally approved certification preparation exam for Net+. They take the exam at least twice in the semester: The first time is to give the instructor an idea of the student's "starting point"—much like a pre-test. The second exam is the only other "written exam" that is given; it replaces all other multiple choice exams that were associated with the course (there were 4). The student may take this exam as many times as they like throughout the semester, with the instructor recoding the highest score. This year for the purposes of a DLLR grant students were also required to take the CompTIA exam before the end of the course. The CompTIA exam was recorded as an assignment and worth 5% of the grade; just for taking the exam (Pass/Fail) students were given 100% for the assignment. Those that passed the exam were given 100% for their final (10% of the grade) instead of taking the Transcender the second time.

Results (What do the data show?)

The following averages show that students are doing well (walk-aways were removed). Three of the four assessments show passing or above average scores. The Visio Drawing assignment scores need to improve. This year students also were assigned to take the CompTIA exam: of the 62 students enrolled, 37 took the exam with one passing. Thus, CompTIA certification tests were not used in the SLOA analysis.

Making Cable	Transcender 2	Visio Drawing-6A	Domains
85.1%	**73.5%**	**59.6%**	**82.1%**

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

The Visio drawings are new to the assessment scores; they do map to the learning outcomes. I plan to draw scores from all of the Visio assignments, taking common scores from each Visio assignment. Two of the assignments need to be reword for clarity.

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

PC lab hardware: NICs, switches, routers, projection unit, cabling, tools, printers, PCs, servers
Wireless hardware and software
Security hardware and software
Simulation software, Virtual PC licenses.
Course Management software
Classroom Management system software