Course Title: IST 155: Networking I

Course Instructor(s): Jack Drooger

Programs: Network Administration, Cyber Security

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: Cisco Academy CCNA and CCENT.
- Completion of hands-on lab assignments created by Cisco Academy using Cisco routers and switches.
- Completion of industry standards cabling case study and worksheets.

Validation (What methods are used to validate your assessment?)
1. Approval of Information Systems Technology Advisory Council
2. Tests comparable to Industry Standard Certification Exams.
3. Faculty Review
4. Cisco Academy assessment

Results (What do the data show?)
Because of changes in program requirements, IST155 is now offered in the fall and spring semesters in a 7.5 week hybrid format providing more opportunity for students to complete their program in a timely manner. Course can also be delivered in a 12 or 15 week offering, primarily during the summer semester.

Since the 2011 fall semester a total of 110 students have taken IST155 Network I.

105 (95%) of the students completed the course and 105 (95%) were successful.

The grade distribution is as follows:

A	51	46%
B	39	35%
C	15	14%
D	0	0%

F   5   5%

There was 0 audit, 1 incomplete and 0 withdrew from the course

IST 155 is one of a set of two courses created by Cisco Academy that map to the Cisco CCENT certification. Curriculum and assignments are updated by the Cisco Academy in an on-going basis.

Follow-up (How have you used the data to improve student learning?)
94% of students completing course requirements successfully complete coursework

Curriculum is frequently updated to map to current objectives of the Cisco Certificated Network Entry Technician certification.

The Cisco classes are now housed in the first floor of the STEM building (STEM 110) and have been an integral part of the networking and security curriculum.

Additional lab access was made available to students at specified times throughout the week and staffed with a grant funded resource person to answer student questions.

New equipment (switches) has recently been purchased and installed in the lab to show students newer switching technology.

Based on feedback from students, the textbook requirements were removed from the class for the 18/19 academic calendar since students can access lab assignments online along with the digital curriculum.

Budget Justification
(What resources are necessary to improve student learning?)
PC lab hardware; projection unit, cabling, tools, printers, PCs, servers
Cisco routers and switches
Learning Management software (Moodle)
Classroom Management system software (Cisco Academy)
Cisco Academy annual support fee ($500, currently supported through Towson University)