

## Course Outcomes Guide

**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.

**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

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### **Results** (What do the data show?)

IST 155 has only been taught in the first 7.5 weeks of the Fall Semester. This is due to the difficulty in obtaining qualified instructors because of the strict requirements the Cisco Academy places on them.

Since the 2011 fall semester a total of 83 students have taken IST155 Network I.

77 (94%) of the students completed the course and 77 (94%) were successful.

The grade distribution is as follows:

A	41	49%
B	29	35%
C	7	8%
D	0	0%
F	5	6%

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 Certified 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.

New equipment (routers and switches) has recently been purchased.

Program requirements have been reduced to 60 credits. Program no longer requires the four courses required for a CCNA certification. Cisco offers a CCENT certificate that only requires two courses (IST 155 and IST 156).

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(To do)

Continue to update Cisco curriculum and Cisco hardware

The Advisory group continues to be divided on this issue however the majority appears to be satisfied with replacing the four course CCNA certification requirement with the two course CCENT certification requirement.

### **Budget Justification**

(What resources are necessary to improve student learning?)

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

Cisco routers and switchers.

Course Management software

Classroom Management system software