Course Title: IST 255 CCNA3: Advanced Routers

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.

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
3. Faculty Review
4. Cisco Academy assessment
Results (What do the data show?)

IST 255 has only been taught in the first 7.5 weeks of the Spring Semester. This is due to the difficulty in obtaining qualified instructors because of the strict requirements the Cisco Academy places on them.

Since the 2012 spring semester a total of 52 students have taken IST255 Network III.

51 (98%) of the students completed the course and 50 (96%) were successful.

The grade distribution is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>26</td>
<td>50%</td>
</tr>
<tr>
<td>B</td>
<td>16</td>
<td>31%</td>
</tr>
<tr>
<td>C</td>
<td>8</td>
<td>15%</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>F</td>
<td>1</td>
<td>2%</td>
</tr>
</tbody>
</table>

There were 0 audits and 0 withdrawals from the course.

IST 255 is one of a set of four courses created by Cisco Academy that map to the Cisco CCNA certification. Curriculum and assignments are updated by the Cisco Academy in an ongoing basis.

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

96% of students completing course requirements successfully complete coursework.

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

The Cisco classes have been moved to the new STEM building and have been an integral part of the networking and security curriculum.

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

(To do)

Continue to update Cisco curriculum and Cisco hardware.

On the national level all the curriculums everywhere are being required to reduce the total number of credits.

Prepared by: Stephen Shank 2 May 2014
Course Outcomes Guide
The Cisco courses are four credits each and take a significant portion of the curriculum. In an effort to reduce the total number of credits it is being considered to develop two new courses that are three credits each to cover the three current “Cisco” courses.

The Advisory group is divided on this issue.

**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