Course Title: IST 261 MCSA/E: Windows Server

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 install and configure Microsoft Server 2016 systems,***
- ***Students will be able to troubleshoot an enterprise server environment***
- ***Students will prepare for the Microsoft Exam 70-410***

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: Microsoft MCP, Microsoft MCSA.

Hands-On Projects: student work in teams of 2-4 students in STEM 110 where there is a server station. They begin my installing the NOS on their server, adding features and roles to the system; joining a domain, setting up IP addresses, storage and organizational units.

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

1. Review and approval of Information Systems Technology Advisory Committee

2. Tests comparable to Industry Standard Certification Exams.

3. Faculty Review

4. Microsoft curriculum content

Results (What do the data show?)
The results are as follows:

	Objective Exams	Final	HOPs
FALL	94%	54%	93%
SPRING	93%	84%	86%
Average	94%	69%	90%

I adopted a new textbook for this past year to reflect the upgrade from Server 2012 to Server 2016 thus making Transcender was not longer valid for this academic year.

The HOPs were rewritten to accommodate the changes in Server versions. The textbook had "on-line labs" which were good for practice, but not enough so that students needed hands-on experience.

There was a complete reversal of scores and percentages with fall & spring semesters for HOPs and the final. There seemed to be quite a few setback and errors during installation during the spring semester—I consider that a plus in that students had more troubleshooting experience. I also modified the HOPs in the spring to include more critical thinking skills so that probably answers why the scores were higher in the fall (too many Yes/No/How many answers).

The spring class made a concentrated effort in studying for the final—several of them met in study groups during the semester.

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

I will continue to modify the HOPs to include more critical thinking skills. I am adding some "real-world challenges" based on errors that occurred in the spring semester—"hands-on mini-exams. The final is heavily scenario-based, so I will continue with sample review exam questions that are scenario-based.

After conferring with a site supervisor for one of my interns this summer, I will be adding more PowerShell command coverage via PowerPoint/podcasts/worksheets. These will be covered in the "off-weeks" for the hybrid class this fall.

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

PC lab hardware; switches, routers, projection unit, cabling, tools, printers, PCs, servers
Server software
Hard drives, NICs
Simulation software, Virtual PC licenses.
Testing Software.
Course Management software
Classroom Management system software
Internet Access