

Course Title: IST 151: PC Tech/Operating Systems

Course Leader: Karen Weil-Yates

Expected Learning Outcomes for Course

- *Students will be able to install, configure and maintain the operating system in both single and dual boot configurations within the Windows family of operating systems.*
- *Students will be able to perform advanced file management operations in order to organize, maintain personal computer systems in a workplace or home environment*
- *Students will utilize system utilities to allocate and organize storage and manage peripheral devices*
- *Students will demonstrate customer service, troubleshooting and preventative maintenance skills*
- *Students will be able to prepare for certification*

Assessment

(How do students demonstrate achievement of these outcomes?)

Students are required to

- complete hands-on labs and answer questions that promote Internet Research of diagnostic solutions, setups, and upgrades; customer service and critical thinking.
- take two hands-on exams: one, where they take a used drive (with existing software/OS), wipe it, partition it and install an OS and subsequent updates; two, where they diagnose and repair a faulty system (one that has booting issues)
- take exams using Blackboard (to simulate certification-type testing) and take the Transcender Practical Applications Exam Prep for A+. Transcender is currently the leading prep exam for certification.
- Students are also required to watch a webinar, listen to a podcast or attend a tech event and write a report; they must also create a bootable thumb drive or CD

Validation

(What methods are used to validate your assessment?)

All instructors who teach this course must be A+ certified. The textbook is an approved CompTIA A+ text and is published by an industry leader in the information technology field.

This course's assessments were validated at the Spring Advisory Meeting on April 24th, 2009. Course content is mapped to A+ 2011 Certification Exam objectives (additional objectives are also included).

Results

(What does the data show?)

Transcender Exam results are as follows:

	# students	show increase	show no change	show decrease	undetermined
SP10 Day	10	1	0	1	8
SP10 Eve	13	6	0	1	6
SU10	6	2	0	0	4
FA10 Eve	14	4	1	1	8

Data for these classes is at best incomplete; Spring 2010 is the semester that I began recording the actual scores for these classes rather than the fact that students took the exams.

Blackboard exam results are as follows:

	Exam 1	Exam 2	Exam 3	Exam 4
SP10 Day	76%	66%	80%	71%
SP10 Eve	70%	64%	77%	N/A
SU10	78%	81%	71%	N/A
FA10 Eve	70%	73%	81%	N/A

The Transcender and on-line exams show that they are preparing for the A+ certification exams.

Hands-On Exams:

The first hands-on exam has an overall average of 94% (lowest score of 34%; all others were above 70%); the second has an overall average of 88% (lowest score of 60%).

Projects:

Students submit a bootable flash drive as approved by the Advisory committee and write a report on their experience; approximately 50% of the students do not complete this assignment. Scores are good (average in the 90%-ile) for those who do complete this assignment.

Follow-up

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

In order to improve Transcender reporting results, I have posted written steps to taking the exams and submitting the results. Students often take the wrong test on the second attempt (they take the Essentials exam). The correct version is written in the syllabus; however, I plan to create a small wall poster to remind them so that I have fewer Undetermined results.

Course Outcomes Guide #4

The first hands-on exam (given after the 5th week) shows how well students can install an operating system, including updates, drivers, and security measures. The second hands-on exam is a gauge of students' troubleshooting customer service skills. Each semester I review the exams and update them according to A+ objectives (version of the OS; new troubleshooting challenges; new utilities).

I plan the bootable flash drive project due earlier in the semester and have other subsequent assignments related to it (so that they need it to move on) rather than waiting until the end of the course.

Budget Justification

(What resources are necessary to improve student learning?) 6 to 8-seat site license for A+ Transcender