

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 using critical thinking skills*
- *Configure, navigate, and synchronize mobile devices, including netbooks and tablets*
- *Students will be able to prepare for certification*
- *Students take CompTIA 902 certification*

Assessment

(How do students demonstrate achievement of these outcomes?)

Students are required to

- complete hands-on activities and answer questions that promote Internet Research of diagnostic solutions, setups, and upgrades; customer service and critical thinking.
- Take a hands-on exam, where they are given a drive and must prepare it for deployment in another country (regional settings, sfc, sigverif, group policy, registry change, and setting password parameters)
- take the Kaplan Transcender 902 Exam Prep for A+ (currently the leading prep exam for certification)

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 by advisory committee members as needed. Course content is mapped to A+ 902 Certification Exam objectives (additional objectives are also included). Students are required to take a nationally approved certification preparation exam for A+. They take the exam at least twice in the semester: The first time is to give the instructor an idea of the student's "starting point"—much like a pre-test. The second exam is the only other "written exam" that is given; it replaces all other multiple choice exams that were associated with the course (there were 4). The student may take this exam as many times as they like throughout the semester, with the instructor recoding the highest score. This year for the purposes of a DLLR grant students were also required to take the CompTIA exam before the end of the course. The CompTIA exam was recorded as an assignment and worth 5% of the grade; just for

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taking the exam (Pass/Fail) students were given 100% for the assignment. Those that passed the exam were given 100% for their final (10% of the grade) instead of taking the Transcender the second time.

- Get them used to the type of questions and the speed/pace at which they make take a true certification exam
- Get students into the habit of preparing for an exam—repetitions help with memory retention
- Get students to set goals and achieve those goals (I am going to get a __% on this exam)
- Give students the initiative and encouragement to take the actual certification—the prep that is used sets a higher bar than the actual certification—this if students pass this prep that can pass the certification.

Results

(What does the data show?)

Transcender Exam (902 results are as follows for the year (1 section), displayed as Averages

Trans 1 2018	Trans 1 2017	Inc/Dec	Trans 2 2018	Trans 2 2017	Inc/Dec
55.9%	59%	-3.5%	Not valid— not every student took it the second time	67%	

This maps to Outcome 6.

Hands-On Exam & Mobile devices HOPs:

The Hands-On Exam is scenario based; students are asked to prepare a prototype system that will be deployed to another country. They must perform 7 tasks using various utilities and commands that they have studied; they must also create a batch file to solve a specific problem.

2018 Hands-on Exam 1	2017 Hand-on Exam 1	Inc/Dec	2018 HOP 11A-J	2017 HOP 11A-J
81.8%	80%	1.8%	88.2%	89%

This class showed an increase for the exam and a slight decrease for the HOP. This assessment maps to Outcomes 2, 3, and 4.

HOP 11 A-J was included this year since it related to the changes/updates/new additions to CompTIA objectives of mobile devices, Apple and Linux OSs. This assessment maps to Outcome 5.

CompTIA 902 certification results

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# Students Enrolled	# Students Taking Cert	# Passing
10	6	3

This assessment maps to the last Outcome.

Follow-up

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

The Certification Exam will not be a requirement for the course. During the second semester, many students opted not to take the cert exam, planning to take it later in the year after they had more tie to study. (Many of my students had multiple exams to take—some 3 or 4).

I will continue to use Transcender as an assessment tool—it does help students to prepare for the exam.

I will continue with the on-line text/UCertify; students liked the text and worked on their interactive assignment before coming to class. I am re-evaluating/rewriting HOPs (Hands-On Projects) (where necessary) to increase critical thinking and troubleshooting skills.

Budget Justification

(What resources are necessary to improve student learning?) 10-seat site license for A+ Self-Test Certification; Operating System Software, CDs/DVDs; MSDNAA Operating system software; 2 removes drives per student; sleeve of DVDs/CDs; 9 tablets (new/under warranty); 6-9 tablets (older for rooting—removing OEM software and adding new ROMs).