

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Computer Systems Technology	160	CST 160 03/16/2017-Computer Technology I
Division	Department	Faculty Preparer
Business and Computer Technologies	Computer Instruction	James Lewis
Date of Last Filed Assessment Report		

I. Assessment Results per Student Learning Outcome

Outcome 1: Identify the names, purposes and operational characteristics of personal computer hardware components.

- Assessment Plan
 - Assessment Tool: Departmental test questions (multiple choice/matching) included as part of instructor developed tests.
 - Assessment Date: Winter 2016
 - Course section(s)/other population: all
 - Number students to be assessed: all
 - How the assessment will be scored: Answer Key
 - Standard of success to be used for this assessment: At least 70% of the students will score 70% or better.
 - Who will score and analyze the data: The test will be scored through Blackboard. The department faculty will analyze the data.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2017	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
38	37

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Out of 38 enrolled students, one student quit attending and was not assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

These courses were F2F. Both day and night courses were assessed using a common departmental task list.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

A departmental task list was used for both sections of this course. The task list used for this objective included disassembly, assessembly and component identification, and a common 100 question final examination. Questions 1, 7, 16,18, 57, 62, 64, 82, 86, and 97 related to SLO 1. Pass / Fail was the criteria for the exercise and all of the multiple choice / fill in the blank questions.

100% of the students successfully performed Exercise #1.
86.4 % of the students successfully answered question 1
86.4% of the students successfully answered question 7
94.5% of the students successfully answered question 16
100% of the students successfully answered question 18
97.2% of the students successfully answered question 57
94.5% of the students successfully answered question 62
97.2% of the students successfully answered question 64
97.2% of the students successfully answered question 82
86.4% of the students successfully answered question 86
91.8% of the students successfully answered question 97
83.7% of the students successfully answered question 98

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this

learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

The standard of success was met for all students. The minimum of 70% or higher in all tasks related to this SLO were met.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students are able to relate client and desktop hardware concepts to networking appliances. Both require hands-on to build, install, configure and maintain. 100% of the students were successfully in this objective.

These skills are carried forward into networking courses. Students successfully answered the following SLO1 relevant final exam questions:

Question 1 = 86.4%

Question 7 = 86.5%

Question 16 = 94.5%

Question 18 = 100%

Question 57 = 97.2%

Question 62 = 94.5%

Question 64 = 97.2%

Question 82 = 97.2%

Question 86 = 86.4%

Question 97 = 91.8%

Question 98 = 83.7%

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Students met the standards for success, however, integrating more networking hardware into the course will assist in migrating skills to the needs and demands of

cloud-based environments and improve preparation for student success in subsequent networking courses.

Outcome 2: Install, configure, optimize and upgrade personal computer hardware components.

- Assessment Plan
 - Assessment Tool: Departmental task list used to assess proficiency in applying concepts and performing hands-on tasks.
 - Assessment Date: Winter 2016
 - Course section(s)/other population: all
 - Number students to be assessed: all
 - How the assessment will be scored: The student will complete hands-on lab experiences, installing the required hardware components. A departmentally approved task list will be used for the evaluation.
 - Standard of success to be used for this assessment: At least 70% of the students will successfully install and configure the required hardware.
 - Who will score and analyze the data: Departmental faculty.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2017	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
38	37

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Out of 38 enrolled students, one student quit attending and was not assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

A common practical hands-on and 100 question written final examination was administered.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Exercise 7, Remove and Replace RAM, and Exercise 8, Remove and Reinstall Hard disk drive were used as rubrics for this SLO. Pass / Fail was the criteria for both exercises.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

97.2% of students successfully completed both tasks (exercises 7 and 8).

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Strength in this objective is demonstrated by students who successfully completed the hands-on portion of these exercises without instructor assistance.

Exercise 7 = 97.2%

Remove and replace hard drive = 97.2%

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Students met the standards for success, however, integrating more networking hardware into the course will assist in migrating skills to the needs and demands of cloud-based environments and improve preparation for student success in subsequent networking courses.

Outcome 3: Identify tools, diagnostic procedures and troubleshooting techniques used to resolve personal computer hardware problems.

- Assessment Plan
 - Assessment Tool: Departmental test questions (multiple choice/matching) included as part of instructor developed tests.
 - Assessment Date: Winter 2016

- Course section(s)/other population: all
- Number students to be assessed: all
- How the assessment will be scored: Answer Key
- Standard of success to be used for this assessment: At least 70% of the students will score 70% or better.
- Who will score and analyze the data: The test will be scored through Blackboard. The department faculty will analyze the data.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2017	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
38	37

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Out of 38 enrolled students, one student quit attending and was not assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Both course sections were F2F.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

A 100-question departmental final exam was used in both sections of this course. Pass / Fail was the criteria for each question on the departmental final examination.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

86.4% of the students successfully completed final examination question 21
91.8% of the students successfully completed final examination question 22
64.8% of the students successfully completed final examination question 51
70.2% of the students successfully completed final examination question 52
94.5% of the students successfully completed final examination question 63

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Student success was identified by accurately answering the following relevant final exam questions and completing the required hands-on practical.

Question 21 = 86.4%

Question 22 = 91.8%

Question 63 = 94.5%

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Students met the standards of success.

Outcome 4: Identify the names, locations, purposes and characteristics of key operating system files.

- Assessment Plan
 - Assessment Tool: Departmental test questions (multiple choice/matching) included as part of instructor developed tests.
 - Assessment Date: Winter 2016
 - Course section(s)/other population: all
 - Number students to be assessed: all
 - How the assessment will be scored: Answer Key
 - Standard of success to be used for this assessment: At least 70% of the students will score 70% or better.
 - Who will score and analyze the data: The test will be scored through Blackboard. The department faculty will analyze the data.
1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2017	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
38	37

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Out of 38 enrolled students, one student quit attending and was not assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All sections offered this term were F2F.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Students were assessed on successful completion of locating and managing critical system files stored on a hard disk drive. Exercise 3 and Exercise 12 were used as rubrics for this SLO.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes
 97.2% of students successfully completed exercise 3.
 91.8% of students successfully completed exercise 12.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Student success rates for this SLO are:

Exercise 3 = 97.2% (Identify, locate and replace Bootmgr, Winload, HAL, NTOSKRNL)

Exercise 12 = 91.8% (Identify, locate and replace csrss.exe, lsass.exe, svchost.exe)

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Future students will continue with base understanding and troubleshooting concepts associated with key operating system files.

Outcome 5: Install, configure, optimize and upgrade operating systems.

- Assessment Plan
 - Assessment Tool: Departmental task list used to assess proficiency in applying concepts and performing hands-on tasks.
 - Assessment Date: Winter 2016
 - Course section(s)/other population: all
 - Number students to be assessed: all
 - How the assessment will be scored: The student will complete hands-on lab experiences, installing the required hardware components. A departmentally approved task list will be used for the evaluation.
 - Standard of success to be used for this assessment: At least 70% of the students will successfully install and configure the required hardware.
 - Who will score and analyze the data: Departmental faculty.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2017	

2. Provide assessment sample size data in the table below.

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3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Out of 38 enrolled students, one student quit attending and was not assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Both sections of this course were F2F.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Exercise 11, "Install an operating system on a desktop client", was used as the rubric for this SLO. Pass / Fail was the criteria for this exercise.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

97.2% of the students were successful in completion of this SLO.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Students were 97.2% successful in installing, configuring, optimizing and upgrading their operating systems. This demonstrates a high percentage of efficiency of student skill. Exercise 11 was used for this SLO.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Continuous improvement will be based on maintaining standards and continual infusion of new information into the course materials.

Outcome 6: Identify tools, diagnostic procedures and troubleshooting techniques used to resolve operating system problems.

- Assessment Plan
 - Assessment Tool: Departmental test questions (multiple choice/matching) included as part of instructor developed tests.
 - Assessment Date: Winter 2016
 - Course section(s)/other population: all

- Number students to be assessed: all
- How the assessment will be scored: Answer Key
- Standard of success to be used for this assessment: At least 70% of the students will score 70% or better.
- Who will score and analyze the data: The test will be scored through Blackboard. The department faculty will analyze the data.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

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Out of 38 enrolled students, one student quit attending and was not assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Departmental Exercise 3 and Exercise 12 were used as the rubric for this SLO.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Exercise 3 - Students utilized the Windows command line in a live operating system environment. Pass / Fail was the criteria for this exercise.

Exercise 12 - Students utilized stress test and malware detection tools in a live operating system environment. Pass / Fail was the criteria for this exercise.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

97.2% of the students successfully completed exercise 3
91.8% of the students successfully completed exercise 12.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

This SLO was assessed by successful completion of exercise 3 with 97.2% and exercise 12 - step 15 = 91.8% successful demonstration, which required appropriate selection and use of software tools for diagnosing system faults.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Continuous improvement will be based on infusion of new and relevant material into the course.

II. Course Summary and Action Plans Based on Assessment Results

1. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

Students receive extensive hands-on experience in maintaining hardware and installation of operating systems on new equipment, which is in high demand in our local community.

2. Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

Via this assessment report.

3. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
No changes intended.			

4. Is there anything that you would like to mention that was not already captured?

5.

III. Attached Files

[CST 160 SLO Assessment Tallys](#)

Faculty/Preparer: James Lewis **Date:** 06/22/2017
Department Chair: Philip Geyer **Date:** 06/22/2017
Dean: Kristin Good **Date:** 06/26/2017
Assessment Committee Chair: Michelle Garey **Date:** 10/18/2017