

**Course Assessment Report  
Washtenaw Community College**

Discipline	Course Number	Title
Computer Information Systems	161	CIS 161 05/09/2020-Introduction to PowerShell
Division	Department	Faculty Preparer
Business and Computer Technologies	Computer Science & Information Technology	Scott Shaper
Date of Last Filed Assessment Report		

**I. Review previous assessment reports submitted for this course and provide the following information.**

1. Was this course previously assessed and if so, when?

No

2. Briefly describe the results of previous assessment report(s).

3.

4. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

5.

**II. Assessment Results per Student Learning Outcome**

Outcome 1: Use cmdlets, filters, selection, and piping to manage the Windows environment.

- Assessment Plan
  - Assessment Tool: Multiple choice, short answer questions and skill tasks on a departmental exam
  - Assessment Date: Winter 2021
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 70% of the students will score 70% or higher

- Who will score and analyze the data: Department 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)
2019, 2019, 2018	2019	2019

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

# of students enrolled	# of students assessed
128	43

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.

This assessment was done for Fall 2018, Winter 2019, Spring Summer 2019 and Fall 2019 MM and Fall 2019 Online. Only the students who completed the program were assessed; however, my data shows 89 total students enrolled (via Blackboard) not 128 that Curricunet shows.

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.

This assessment only assessed the students that actually completed the class; however, all sections offered in the above dates were assessed.

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

The process used for this assessment was evaluating projects 4.1 – 4.4. Each project was a small script the students had to create, which required students to demonstrate the outcome.

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

33 of the 43 (76%) students assessed scored 70% or higher on this outcome. The tool used to get this data was evaluating projects 4.1 – 4.4. The standard of success was achieved for this outcome.

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

Based on the data, it appears that the students who were assessed satisfactorily completed the outcome.

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.

The students assessed for this outcome met the criteria. Later in this report I will discuss future plans for continuous improvement of this class.

Outcome 2: Identify appropriate use of simple object-oriented concepts.

- Assessment Plan
  - Assessment Tool: Multiple choice and short answer questions on a departmental exam
  - Assessment Date: Winter 2021
  - Course section(s)/other population: All
  - Number students to be assessed: All
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 70% of the students will score 70% or higher
  - Who will score and analyze the data: Department 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)
2019, 2019, 2018	2019	2019

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

# of students enrolled	# of students assessed
128	43

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.

This assessment was done for Fall 2018, Winter 2019, Spring Summer 2019 and Fall 2019 MM and Fall 2019 Online. Only the students who completed the program were assessed; however, my data shows 89 total students enrolled (via Blackboard) not 128 that Curricunet shows.

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.

This assessment only assessed the students that actually completed the class; however, all sections offered in the above dates were assessed.

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

The process used for this assessment was evaluating projects 4.1 – 4.4. Each project was a small script the students had to create, which required students to demonstrate the outcome.

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

33 of the 43 (76%) students assessed scored 70% or higher on this outcome. The tool used to get this data was evaluating projects 4.1 – 4.4. The standard of success was achieved for this outcome.

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

Based on the data, it appears that the students who were assessed satisfactorily completed the outcome.

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.

The students assessed for this outcome met the criteria. Later in this report, I will discuss future plans for continuous improvement of this class.

Outcome 3: Use Windows Management Instrumentation (WMI) to control the environment.

- Assessment Plan

- Assessment Tool: Multiple choice short answer questions and skill tasks on a departmental exam
- Assessment Date: Winter 2021
- Course section(s)/other population: All
- Number students to be assessed: All
- How the assessment will be scored: Departmentally-developed rubric
- Standard of success to be used for this assessment: 70% of the students will score 70% or higher
- Who will score and analyze the data: Department 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)
2019, 2019, 2018	2019	2019

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

# of students enrolled	# of students assessed
128	43

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.

This assessment was done for Fall 2018, Winter 2019, Spring Summer 2019 and Fall 2019 MM and Fall 2019 Online. Only the students who completed the program were assessed; however, my data shows 89 total students enrolled (via Blackboard) not 128 that Curricunet shows.

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.

This assessment only assessed the students that actually completed the class; however, all sections offered in the above dates were assessed.

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

The process used for this assessment was evaluating projects 9.1 – 9.2. Each project was a small script the students had to create, which required students to demonstrate the outcome.

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: <u>Yes</u>
32 of the 43 (74%) students assessed scored 70% or higher on this outcome. The tool used to get this data was evaluating projects 9.1 – 9.2. The standard of success was achieved for this outcome.

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

Based on the data, it appears that the students who were assessed satisfactorily completed the outcome.
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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.

The students assessed for this outcome met the criteria. Later in this report, I will discuss future plans for continuous improvement of this class.
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Outcome 4: Create basic PowerShell scripts.

- Assessment Plan
    - Assessment Tool: Multiple choice, short answer questions and skill tasks on a departmental exam
    - Assessment Date: Winter 2021
    - Course section(s)/other population: All
    - Number students to be assessed: All
    - How the assessment will be scored: Departmentally-developed rubric
    - Standard of success to be used for this assessment: 70% of the students will score 70% or higher
    - Who will score and analyze the data: Department 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)
2019, 2019, 2018	2019	2019

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

# of students enrolled	# of students assessed
128	43

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.

This assessment was done for Fall 2018, Winter 2019, Spring Summer 2019 and Fall 2019 MM and Fall 2019 Online. Only the students who completed the program were assessed; however, my data shows 89 total students enrolled (via Blackboard) not 128 that Curricunet shows.

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.

This assessment only assessed the students that actually completed the class; however, all sections offered in the above dates were assessed.

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

The process used for this assessment was evaluating projects 8.1 – 8.3. Each project was a small script the students had to create, which required students to demonstrate the outcome.

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  
31 of the 43 students (72%) assessed scored 70% or higher on this outcome. The tool used to get this data was evaluating projects 8.1 – 8.3. The standard of success was achieved for this outcome.

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

Based on the data, it appears that the students who were assessed satisfactorily completed the outcome.

- 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.

The students assessed for this outcome met the criteria. Later in this report, I will discuss future plans for continuous improvement of this class.

### III. Course Summary and Intended Changes Based on Assessment Results

- Based on the previous report's Intended Change(s) identified in Section I above, please discuss how effective the changes were in improving student learning.

There were no previous reports that I saw.

- 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?

The students who completed the course completed it successfully; however, that was only about 50% of the students enrolled. This was consistent in all sections assessed, so many students are leaving or not finishing. It is also not evident by the data if the students who did not complete the course would have completed it if they stuck it out. Sadly, we do not have concrete data as to why this is happening. All we have is some verbal comments from students. The students who commented feel the class is too hard, and they are networking students, not programming students. So many of the concepts taught in the PowerShell class are not something they are familiar with. It also appears that perhaps the course goes too far in what the networking students seem to need.

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

This was discussed in a faculty meeting with all full-time faculty.

- Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Other: Decided to terminate the course	This course will be terminated and replaced with an existing Python and Unix course.	This course was brought up in a special faculty meeting to discuss what could be done to make it	2020



		<p>better. An initial idea was to make the course smaller and combine it with some Unix and Python languages that are also used as scripting languages. During the discussion, it was determined that none of the networking classes did much with PowerShell and that the course did not seem to have any direct connection to any other course or program. It was also determined that mostly the Unix and Python classes were used to teach the scripting and seemed to have better success rates. Ultimately, it was decided by all the faculty that it was best to terminate the course and adjust the Unix and Python course slightly to have more network related scripting.</p>	
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5. Is there anything that you would like to mention that was not already captured?

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### III. Attached Files

[Excel Files of the data](#)

**Faculty/Preparer:** Scott Shaper **Date:** 05/14/2020  
**Department Chair:** Khaled Mansour **Date:** 05/14/2020  
**Dean:** Eva Samulski **Date:** 05/16/2020  
**Assessment Committee Chair:** Shawn Deron **Date:** 07/21/2020