

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Computer Systems Security	225	CSS 225 08/13/2025- Cybersecurity Operations - CCNA Cyber Ops
College	Division	Department
Business and Computer Technologies	Business and Computer Technologies	Computer Science & Information Technology
Faculty Preparer		Edward Szurek
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: Explain cybersecurity operations network principles and protocols.

- Assessment Plan
 - Assessment Tool: Outcome-related questions on the departmentally-developed objective final exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed answer key

- Standard of success to be used for this assessment: 70% of students assessed 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)
	2025	

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

# of students enrolled	# of students assessed
26	25

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.

One student did not complete the activity.

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.

Grade export from NetAcad for all students. This was synced to Blackboard.

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

NetAcad only permits overall scores for final exam assessments. The overall scores are taken and compared with the standard of success.

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 is met with 100% (25/25) students scoring 70 or higher. The average was a 91.5 with a standard deviation of 6.8 percentage points. The lowest score was a 70%.

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

As it is measured by final exam performance, this outcome is adequately met but needs to be measured more directly.

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 standard of success was met. My plan for improvement is to update this to individual outcomes that we are capable of measuring independently.

Outcome 2: Identify the technologies, tools, regulations and frameworks in a cybersecurity operations network.

- Assessment Plan
 - Assessment Tool: Outcome-related questions on the departmentally-developed objective final exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally-developed answer key
 - Standard of success to be used for this assessment: 70% of students assessed will score 70% or higher
 - Who will score and analyze the data: Department faculty

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	2025	

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7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning 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 standard of success was met. My plan for improvement is to update this to individual outcomes that we are capable of measuring independently.

Outcome 3: Apply knowledge and skills to monitor, detect, investigate, analyze and respond to security incidents.

- Assessment Plan
 - Assessment Tool: Outcome-related questions on the departmentally-developed objective final exam

- Assessment Date: Fall 2022
- Course section(s)/other population: All sections
- Number students to be assessed: All students
- How the assessment will be scored: Departmentally-developed answer key
- Standard of success to be used for this assessment: 70% of students assessed 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)
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One student did not complete the activity.
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The standard of success was met. My plan for improvement is to update this to individual outcomes that we are capable of measuring independently.

Outcome 1: Explain cybersecurity operations network principles and protocols.

- Assessment Plan
 - Assessment Tool: Departmentally-developed skills exam
 - Assessment Date: Fall 2022
 - Course section(s)/other population: All sections
 - Number students to be assessed: Random sample of 50% of all students with the minimum of 1 full section
 - How the assessment will be scored: Departmentally-developed rubric
 - Standard of success to be used for this assessment: 70% of students assessed will score 70% or higher
 - Who will score and analyze the data: Department faculty
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The assessment population is specified as a random sample of 50% of all students. The random selection was done in Excel and is available as data.

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.

Only a single section was available for selection.

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

Unfortunately there is no departmentally-developed rubric that breaks out the final skills exam by outcome. A manual rubric was developed and used to score these exams. Overall scores were randomly selected as described above and then processed using min/max/avg/stdev functions.

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 with 11/13 (84.6%) assessed students scoring over 70%. The sample received an average score of 86.5% with a standard deviation of 15.3 percentage points. The lowest score from this sample was a 47.5% and the highest was a 98%.

These random results are similar to the entire population, with 20/25 (80%) over 70% and an average of 83.3 +/- 18.9.

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

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III. Course Summary and Intended Changes Based on Assessment Results

1. 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 are no previous reports.

2. 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 course is doing an excellent job of preparing students for the role of an analyst working in a SOC. They are able to pass the exams and complete the work as designed. However, our assessment plan needs to be updated based on the availability of the course results and the course material.

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

No other full time faculty currently teach any CSS courses, however this is an excellent example of where better alignment with NetAcad can assist in assessment. This will be discussed at future department meetings.

4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	All outcomes need to be redone to better align with the source material (NetAcad) outcomes and assessments.	The current SLOs require a level of visibility into Cisco/NetAcad exam results that aren't available.	2026
Assessment Tool	Assessment tools will do away with random samples and instead assess all students.	This is the current best practice for C&A.	2026

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

The master syllabus specifies we use a departmentally-developed final exam and skills exam with a departmentally developed rubric. Unfortunately, none of these items exist, which has complicated assessment and blunted the results. For all my ownership of the course, we have used the Cisco/NetAcad materials with per-instructor customizations. Updates are planned to remedy this situation, as mentioned in the action plan.

III. Attached Files

[Finals data for CSS225 for Fall 2025](#)

Faculty/Preparer: Edward Szurek **Date:** 08/13/2025

Department Chair: Scott Shaper **Date:** 08/13/2025

Dean: Eva Samulski **Date:** 08/13/2025

Assessment Committee Chair: Jessica Hale **Date:** 07/08/2026