Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Computer Networking Technology	226	CNT 226 03/16/2017-Scaling Networks
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: Configure and troubleshoot routers and switches

- Assessment Plan
    - Assessment Tool: The Cisco Systems online final exam (blind-scored)
    - Assessment Date: Winter 2017
    - 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: 75% of the students will score 70% or higher on the exam.
    - Who will score and analyze the data: Departmental 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
7	7

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.

All enrolled students were 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.

This course was F2F this term and all students were assessed.

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

This SLO was assessed in a hands-on exercise in which students actually built, tested and verified several router and switch configurations. Exercise modules 2 and 3 were the rubrics for this SLO. Successful completion of the objectives for this SLO were Pass / Fail against the requirements of the 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
All students were successful in completion of this objective (7/7). All students successfully passed the online final examination minimum requirement of 75%.

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

Students cabled and created configuration scripts for a segment of an enterprise network. They successfully built, troubleshot and maintained the functionality of an instructor-introduced network that included routers, switches, and a client and server relationship.

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.

Student success can be maintained by continuing the capstone practical hands-on examination.

Outcome 2: Resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks

- Assessment Plan
    - Assessment Tool: A Departmental Task List will be used to assess proficiency (pass/fail) in applying the concepts and in performing hands-on tasks.
    - Assessment Date: Winter 2017
    - 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: 75% of the students will complete all of the tasks.
    - Who will score and analyze the data: Departmental faculty will score and 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
7	7

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.

All students enrolled in this course for this term were assessed (7/7).

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 section was F2F.

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

Students performed hands-on exercises for building, testing, debugging and demonstrating successful configuration and use of a local area network utilizing classroom equipment. 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
Student exercises as identified in Cisco curriculum Module 2, switch STP configuration and troubleshooting, Module 5 OSPF single area, Module 6, OSPF multi-area, Module 7, EIGRP configuration and troubleshooting, and Module 8, EIGRP configuration and troubleshooting, were used as the rubric for this SLO. All students successfully met all SLO exercises. Additionally, all students successfully built a component of an enterprise capstone network.

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

Successful completion by all students of hands-on modules 2, 5, 6, 7, 8 and a capstone project demonstrated student understanding and strength of skill for this objective.

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 continual exposure to the hands-on modules that provide experience with the relevant objectives.

Outcome 3: Implement a WLAN in a small-to-medium network

- Assessment Plan
    - Assessment Tool: The Cisco Systems online final exam (blind-scored)
    - Assessment Date: Winter 2017
    - 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: 75% of the students will score 70% or higher on the exam.

- Who will score and analyze the data: Departmental 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
7	7

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.

All students enrolled in this course this term were assessed (7/7).

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 offerings in this course for 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.

This SLO as written cannot be assessed in an online environment. To effectively assess student skill in relation to the SLO objective, students were presented with equipment to build, test, troubleshoot and demonstrate operation of a wireless local area network (WLAN). 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
All students successfully performed the objective for this SLO.

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

All students were successful in building a small WLAN without instructor assistance. This demonstrates understanding and skill in 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.

Continue exposure to the hands-on exercises that require students to build a wireless network.

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?

No surprises based on this assessment. Their ability to architect, build, configure and maintain a small local area network was demonstrated as exceptional.

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

The results of this assessment will be presented in a Fall 2017 department meeting.

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

CNT 226 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:**	09/28/2017