

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Medical Office Worker	104	MED 104 08/07/2024-Medical Assistant Math and Pharmacology
College	Division	Department
Health Sciences	Health Sciences	Allied Health
Faculty Preparer		Rhonda Johns
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: Apply mathematical computations to solve equations.

- Assessment Plan
 - Assessment Tool: Outcome-related questions on departmental exam
 - Assessment Date: Winter 2023
 - 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: 80% of students will score 75% or higher
- 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)
2022, 2021, 2020		

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

# of students enrolled	# of students assessed
76	73

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.

Some students did not complete the course or participate in the assessments.

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 students that completed the assessment were assessed.

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

The assessment tool was a final exam consisting of multiple-choice and true/false items. The exam was scored through Blackboard and an item analysis was generated.

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

Fall 2020- 82% of the students assessed (23/28) scored 75% or higher on the questions used to address the outcome.

Fall 2021- 88% of the students assessed (22/25) scored 75% or higher on the questions used to address the outcome.

Fall 2022- 85% of the students assessed (17/20) scored 75% or higher on the questions used to address the outcome.

Overall, 85% of the students assessed (62/73) scored 75% or higher on the questions used to address the outcome.

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

The assessment showed that the students were able to successfully solve basic math problems allowing them to perform dosage calculations of medications.

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 standard of success in all years assessed. Students were offered extra on campus help sessions with the math problems.

Outcome 2: Calculate proper dosages of medication for administration.

- Assessment Plan
 - Assessment Tool: Outcome-related questions on departmental exam
 - Assessment Date: Winter 2023
 - 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: 80% of students will score 75% or higher
 - 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)
2022, 2021, 2020		

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

# of students enrolled	# of students assessed
76	72

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.

Not all of the students enrolled completed the class or took the assessments.

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 students who completed the assessment questions were included.

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

The assessment tool was a final exam consisting of multiple-choice questions and dosage calculation problems. The exam was scored through Blackboard and an item analysis was generated.

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

Fall 2020- 81% of the students assessed (22/27) scored 75% or higher on the questions used for the assessment.

Fall 2021 84% of the students assessed (21/25) scored 75% or higher on the questions used for the assessment.

Fall 2022 80 % of the students assessed (16/20) scored 75% or higher on the questions used for the assessment.

Overall, 82% of the students assessed (59/72) scored 75% or higher on the questions used for the assessment.

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

The students were able to successfully calculate dosages on mathematical problems, preparing them to correctly interpret and calculate dosages from medication orders.

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 met the standard of success for this outcome. The course format was changed from in-person to virtual. Some of the students found doing math on Zoom difficult, so we offered tutoring on campus for the students. We will continue to give students opportunities to come to tutoring and practice labs on campus.

Outcome 3: Administer parenteral (excluding IV) medications.

- Assessment Plan
 - Assessment Tool: Skill check-off sheets
 - Assessment Date: Winter 2023
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Rubrics
 - Standard of success to be used for this assessment: 80% of students will score 85% or higher
 - 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)
2022, 2021, 2020		

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

# of students enrolled	# of students assessed
76	72

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.

Not all students registered for the class completed the course and were 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 students participating in the skill tests were assessed.

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

Skill competency sheets were used. Each skill sheet had a list of criteria/ steps that students needed to complete. Students were scored on those steps. The score earned was compared with the total score of each skill sheet. The outcome was assessed from 3 skill test check sheets that were scored.

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

Fall 2020 - 100% of the students assessed (27/27) scored 85% or higher on the skill checks.

Fall 2021- 96% of the students assessed (24/25) scored 85% or higher on the skill checks.

Fall 2022- 100% of the students assessed (20/20) scored 85% or higher on the skill checks.

Overall, 99% of the students assessed (71/72) scored 85% or higher on the skill checks.

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

The students were able to successfully complete the skills of administering intramuscular, subcutaneous, and intradermal injections in all assessment years.

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 successfully met the standard of success for this outcome. The format of this course was changed from a face-to-face (F2F) format to virtual. We practiced the skills in MED 114 lab and offered open labs for students to practice. We will

continue to give students the opportunity to practice the required skills in the on - campus labs.
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Outcome 4: Identify relevant dietary requirements and the classifications of medications including indications for use, desired effects, side effects, and adverse reactions.

- Assessment Plan
 - Assessment Tool: Outcome-related questions on departmental exam
 - Assessment Date: Winter 2023
 - 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: 80% of students will score 75% or higher
 - 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)
2022, 2021, 2020		

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

# of students enrolled	# of students assessed
76	72

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.

Not all the students registered for the class completed the class to be 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 students that completed the assessment were assessed.

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

The assessment tool was a final exam consisting of multiple-choice and short answer items. The exam was scored through Blackboard and an item analysis was generated.

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

Fall 2020- 89% of the students assessed (24/27) scored 75% or higher on the questions.

Fall 2021- 84% of the students assessed (21/25) scored 75% or higher on the questions.

Fall 2022- 80% of the students assessed (16/20) scored 75% or higher on the questions.

Overall, 85% of the students assessed (61/72) scored 75% or higher on the questions.

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

Students were able to identify relevant dietary requirements and the classifications of medications including indications for use, desired effects, side effects, and adverse reactions in all assessed years.

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 were able to meet this standard in all assessed years. We will continue to offer student tutoring sessions virtual and on campus to help them to continue to be successful.

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 was no previous assessment report.

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 meets the needs of the students. Students were successful in meeting the learning outcomes in all the assessed years. Since the course changed from F2F to a virtual class, there have been challenges to students being able to have hands-on practice of injection skills. We have set aside time in the MED 114 on-campus lab for this and open labs.

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

The results of the assessments are discussed with faculty in meetings and adjustments are made after the semester for the next session of the class.

- 4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Other: On-campus Tutoring/Practice Labs	Continue to offer opportunities for students to come to tutoring and practice labs on campus.	To support students with additional opportunities to practice/learn the math and lab skills needed to succeed in this course.	2026
Outcome Language	Remove Learning outcome 1. Apply mathematical computations to solve equations.	This outcome is achieved with outcome 2. Calculate proper dosages of medication for administration.	2026
Objectives	Some of the objectives listed on the master syllabus should be removed. They are addressed in other courses in the program. 6. Analyze healthcare results as	The objectives that are being removed are covered other courses in the program. They should not be listed for this course.	2026

	reported in graphs and tables. 8. Differentiate between normal and abnormal test results. 9. Maintain lab test results using flow sheets. 10. Document on a growth chart. 11. Reassure a patient of the accuracy of the test results 20. Describe dietary nutrients including carbohydrates, fat, protein, minerals, electrolytes, vitamins, fiber, and water. 21. Define the function of dietary supplements. 22. Identify the special dietary needs for weight control, diabetes, cardiovascular disease, hypertension, cancer, lactose sensitivity, gluten-free, and food allergies.		
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	23. Instruct a patient according to the patient's special dietary needs.		
	24. Show awareness of a patient's concerns regarding a dietary change.		

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

6.

III. Attached Files

[MED 104 Assessment Data](#)

Faculty/Preparer: Rhonda Johns **Date:** 07/16/2025
Department Chair: Kristina Sprague **Date:** 07/17/2025
Dean: Shari Lambert **Date:** 07/28/2025
Assessment Committee Chair: Jessica Hale **Date:** 07/08/2026