

**Course Assessment Report
Washtenaw Community College**

Discipline	Course Number	Title
Radiography	262	RAD 262 02/01/2022- Principles of Computed Tomography (CT)
College	Division	Department
	Health Sciences	Allied Health
Faculty Preparer		Jim Skufis
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: Recognize the historical events that lead to the development of computed tomography (CT).

- Assessment Plan
 - Assessment Tool: Embedded questions on the multiple choice final exam
 - Assessment Date: Fall 2015
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students (maximum admission to Computed Tomography (CT) program is 12 students)
 - How the assessment will be scored: Blind-scored with an answer key.

- Standard of success to be used for this assessment: 90% of the students will score 75% or higher on the outcome related questions.
- Who will score and analyze the data: 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)
	2021	

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

# of students enrolled	# of students assessed
5	5

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 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.

Only one section was offered, and all students in this section were assessed.

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

Rather than using a final exam, we used students' 60-question homework assignment from Unit 1 which exclusively covered the historical events that led to the development of computed tomography (CT) systems. Each question was worth 10 points, so 600 points were possible. An average, median, range, and standard deviation (SD) were calculated.

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 average score was 572 points, with the median being 580. The high score was 600 and the low score was 530; therefore the range was 70 points and the SD was 23.15. The lowest percentage score was 88%, so all students scored above 75%. Therefore, students met our defined standard of success.

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

Based on the results of this assessment of students' ability to recognize the historical events that lead to the development of computed tomography (CT), it is clear that they can indeed recognize these events. The lowest score for this assignment was 530 points out of 600 or 88%, well above the 75% score initially set as the benchmark.

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.

Although the benchmark for success was met, this is the first time I have assessed this course and used this tool. I will need more assessment cycles before deciding to change anything.

Outcome 2: Correlate the design and operation of a computed tomography (CT) system.

- Assessment Plan
 - Assessment Tool: Embedded questions on the multiple choice final exam
 - Assessment Date: Fall 2015
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students (maximum admission to Computed Tomography (CT) program is 12 students)
 - How the assessment will be scored: Blind-scored with an answer key.
 - Standard of success to be used for this assessment: 90% of the students will score 75% or higher on the outcome related questions.
 - Who will score and analyze the data: 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)
	2021	

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

# of students enrolled	# of students assessed
5	5

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 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.

Only one section was offered, and all students in this section were assessed.

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

Rather than using a final exam, we used students' 90-question homework assignment from Unit 3 which exclusively covered the design and operation of a computed tomography (CT) systems. Each question was worth 10 points, so 900 points were possible. An average, median, range, and standard deviation were calculated.

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 average score was 868 points, with the median being 870. The high score was 880 and the low score was 850; therefore the range was 30 points and the SD was 11.66. The lowest percentage score was 94%, so all students scored above 75%. Therefore, students met our defined standard of success.

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

Based on the results of this assessment of students' ability to correlate the design and operation of a computed tomography (CT) system, it is clear that they can indeed accomplish this. The lowest score for this assignment was 850 points out of 900 or 94%, well above the 75% score initially set as the benchmark.

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.

Although the benchmark for success was met, this is the first time I have assessed this course and used this tool. I will need more assessment cycles before deciding to change anything.

Outcome 3: Apply the basic fundamentals of computed tomography (CT) scanning.

- Assessment Plan
 - Assessment Tool: Embedded questions on the multiple choice final exam
 - Assessment Date: Fall 2015
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students (maximum admission to Computed Tomography (CT) program is 12 students)
 - How the assessment will be scored: Blind-scored with an answer key.
 - Standard of success to be used for this assessment: 90% of the students will score 75% or higher on the outcome related questions.
 - Who will score and analyze the data: 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)
	2021	

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

# of students enrolled	# of students assessed
5	5

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 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.

Only one section was offered, and all students in this section were assessed.

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

All questions on the 100-question multiple-choice final exam were used to assess this outcome. Each question was worth one point. An average, median, range, and standard deviation were calculated.

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 average score was 87.4 points, with the median being 90. The high score was 99 and the low score was 76; therefore the range was 23 points and the SD was 8.06. The lowest percentage score was 76%, so all students scored above 75%. Therefore, students met our defined standard of success.

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

Based on the results of this assessment of students' ability to apply the basic fundamentals of computed tomography (CT) scanning, it is clear that they can indeed accomplish this. The lowest score for this assignment was 76 points out of 100 or 76%, above the 75% score initially set as the benchmark.

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.

Although the benchmark for success was met, it was not greatly exceeded like the other outcomes. Since this is the first time this course has been assessed, I will need more assessment cycles before deciding to change anything.

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.

This is the first time this course has been assessed; therefore, no changes were made.

- 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?

RAD 262 is meeting the students' needs by helping them to recognize the historical events that lead to the development of computed tomography, correlate the design and operation of a computed tomography system, and apply the basic fundamentals of computed tomography scanning. However, different assessment tools than those originally selected for outcomes one and two had to be used because the original tools were not specific enough to evaluate the outcome. What this assessment brought to light was the need to update the master syllabus for this course.

- 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 shared with program faculty during regular faculty meetings and with our program's advisory committee during advisory committee meetings.

- Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	Update outcomes based on course adjustments over time.	Outcomes no longer align well with the course content.	2023
Assessment Tool	Update assessment tool and standard of success based on revision to the outcomes.	Improve alignment with outcomes and collect more meaningful assessment data.	2023

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

On to a Master Syllabus revision.

III. Attached Files

[RAD262 Outcome 2 data](#)
[RAD262 Outcome 1 data](#)
[RAD262 Outcome 3 data](#)

Faculty/Preparer:

Jim Skufis

Date: 02/03/2022

Department Chair: Kristina Sprague **Date:** 02/10/2022
Dean: Shari Lambert **Date:** 02/11/2022
Assessment Committee Chair: Shawn Deron **Date:** 03/21/2022