

**Course Assessment Report  
Washtenaw Community College**

Discipline	Course Number	Title
Radiography	111	RAD 111 01/19/2023- Fundamentals of Radiography
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?

Yes  5/22/2006
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2. Briefly describe the results of previous assessment report(s).

Data from the assessment showed that students lacked the critical thinking skills needed to manipulate the equipment and accessory devices to produce quality diagnostic radiographs.
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3. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

The action plan was to create additional exercises and worksheets to help the students develop these critical thinking skills. These changes were implemented at the next offering of this course as Blackboard exercises.
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**II. Assessment Results per Student Learning Outcome**

Outcome 1: Identify the function of fixed and mobile radiographic equipment and accessory devices that are used to produce quality diagnostic radiographs.

- Assessment Plan
  - Assessment Tool: Comprehensive Exam #7 on Blackboard
  - Assessment Date: Fall 2019

- 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 the students will score 70% 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

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

# of students enrolled	# of students assessed
34	33

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.

The roster from Oraweb for this course and Blackboard only show that there were a total of 33 students ever enrolled.

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 from all three sections were assessed.

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

This outcome was assessed using the 70-question Comprehensive Exam #7, with each question worth one point. A statistical analysis of student scores (Minimum, Maximum, Range, Average, and Median) was performed.

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 for this outcome is that 80% of students will score a 70% or higher.

Twenty-eight of the thirty-three students (85%) scored above the 70% benchmark set for this outcome, so the standard of success was met for this outcome using this tool.

Combining scores from all three sections gives a minimum grade of 41 points, a maximum grade of 68 points, a range of 27 points, an average of 57.6 points (82%), and a median of 57.7 points (82%).

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 identify the function of fixed and mobile radiographic equipment and accessory devices that are used to produce quality diagnostic radiographs, it is clear that they can indeed do these functions. The average score for students on this exam was exams 82%, well above the 70% 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.

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 substantive in the course. Five students in this sample scored below 70%, and although the benchmark was met, further assessment is needed to determine if this trend continues.

Outcome 2: Identify the primary exposure factors that are used to produce diagnostic radiographs.

- Assessment Plan
  - Assessment Tool: Chapter 14 homework assignment administered through Blackboard
  - Assessment Date: Fall 2019
  - 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 the students will score 70% 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

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

# of students enrolled	# of students assessed
34	33

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.

The roster from Oraweb for this course and Blackboard only show that there were a total of 33 students ever enrolled.

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 from all three sections were assessed.

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

This outcome was assessed using the 20-question Image Exposure Homework, with each question worth one point. The assessment plan describes this tool as the "Chapter 14 homework assignment" in the 2019 Master Syllabus, but due to a chapter number change with the next edition of the textbook, a more descriptive title for the tool is being used. It incorporates the same questions as before. A statistical analysis of student scores (Minimum, Maximum, Range, Average, and Median) was performed.

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 for this outcome is that 80% of students will score a 70% or higher.

Twenty-eight of the thirty-three students (85%) scored above the 70% benchmark set for this outcome, so the standard of success was met for this outcome using this tool.

Combining scores from all three sections gives a minimum grade of 12 points, a maximum grade of 20 points, a range of 8 points, an average of 16.7 points (83%), and a median of 17.3 points (87%).

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 identify the primary exposure factors that are used to produce diagnostic radiographs, it is clear that they can indeed identify these factors. The average score for students on this exam was 83%, well above the 70% 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.

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 substantive in the course. Five students in this sample scored below 70%, and although the benchmark was met, further assessment is needed to determine if this trend continues.

### **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.

Because the prior assessment report used different outcomes and different assessment tools, this cannot be discussed.

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?

RAD 111 is meeting the students' needs by helping them identify the function of fixed and mobile radiographic equipment and accessory devices that are used to produce quality diagnostic radiographs and identify the primary exposure factors that are used to produce diagnostic radiographs.

3. 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.

- 4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
No changes intended.			

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

6.

### III. Attached Files

[RAD111 Section F2 Exam 7](#)

[RAD111 Section F2 Image Exposure](#)

[RAD111 Section F3 Exam 7](#)

[RAD111 Section F3 Image Exposure](#)

[RAD111 Section F1 Exam 7](#)

[RAD111 Section F1 Image Exposure](#)

**Faculty/Preparer:** Jim Skufis **Date:** 01/19/2023

**Department Chair:** Kristina Sprague **Date:** 01/19/2023

**Dean:** Shari Lambert **Date:** 01/19/2023

**Assessment Committee Chair:** Shawn Deron **Date:** 02/24/2023

**COURSE ASSESSMENT REPORT**

**I. Background Information**

1. Course assessed:  
 Course Discipline Code and Number: RAD 111  
 Course Title: Fundamentals of Radiography  
 Division/Department Codes: ALHD/RAD
  
2. Semester assessment was conducted (check one):  
 Fall 20\_\_  
 Winter 20\_\_  
 Spring/Summer 2006\_\_
  
3. Assessment tool(s) used: check all that apply.  
 Portfolio  
 Standardized test  
 Other external certification/licensure exam (specify):  
 Survey  
 Prompt  
 Departmental exam  
 Capstone experience (specify):  
 Other (specify):
  
4. Have these tools been used before?  
 Yes  
 No

If yes, have the tools been altered since its last administration? If so, briefly describe changes made.  
 Yes, exam questions have be updated.

5. Indicate the number of students assessed/total number of students enrolled in the course.  
 37
  
6. Describe how students were selected for the assessment.  
 Entire class was used.

**II. Results**

1. Briefly describe the changes that were implemented in the course as a result of the previous assessment.  
 This is the first time this course was assessed.
  
2. State each outcome (verbatim) from the master syllabus for the course that was assessed.
  1. Identify the function of basic radiographic equipment and accessory devices that are used to produce quality diagnostic radiographs.
  
  2. Operate diagnostic radiographic equipment and use accessory devices to produce diagnostic radiographs.
  
3. Briefly describe assessment results based on data collected during the course assessment, demonstrating the extent to which students are achieving each of the learning outcomes listed above. **Please attach a summary of the data collected.**  
 Outcome 1: The data from the final examination indicated that the students acquired the essential knowledge about the function of the basic radiographic equipment and accessory devices that are used to produce quality diagnostic radiographs.  
  
 Outcome 2: The data from the final examination indicated that the students lacked the critical thinking skills to manipulate the equipment and accessory devices to produce a quality diagnostic image.
  
4. For each outcome assessed, indicate the standard of success used, and the percentage of students who achieved that level of success. **Please attach the rubric/scoring guide used for the assessment.**

**COURSE ASSESSMENT REPORT**

See attached data sheet.

- 5. Describe the areas of strength and weakness in students' achievement of the learning outcomes shown in assessment results.

Strengths: Students demonstrated an understanding of the basic components of the radiographic equipment.

Weaknesses: Students do not have strong critical thinking skills.

**III. Changes influenced by assessment results**

- 1. If weaknesses were found (see above) or students did not meet expectations, describe the action that will be taken to address these weaknesses.

Create additional exercises and worksheets to help the students develop their critical thinking skills.

- 2. Identify intended changes that will be instituted based on results of this assessment activity (check all that apply). Please describe changes and give rationale for change.

- a.  Outcomes/Assessments on the Master Syllabus  
Change/rationale:

- b.  Objectives/Evaluation on the Master Syllabus  
Change/rationale:

- c.  Course pre-requisites on the Master Syllabus  
Change/rationale:

- d.  1<sup>st</sup> Day Handouts  
Change/rationale:

- e.  Course assignments  
Change/rationale: Create additional assignments.

- f.  Course materials (check all that apply)
  - Textbook
  - Handouts
  - Other: Create critical thinking exercises.

- g.  Instructional methods  
Change/rationale:

- h.  Individual lessons & activities  
Change/rationale:

- 3. What is the timeline for implementing these actions? The additional exercises and worksheets will be used in the Summer of 2007.

**IV. Future plans**

- 1. Describe the extent to which the assessment tools used were effective in measuring student achievement of learning outcomes for this course.  
The departmental final identified the need for additional exercises to strengthen the students' critical thinking skills.
- 2. If the assessment tools were not effective, describe the changes that will be made for future assessments.

- 3. Which outcomes from the master syllabus have been addressed in this report?

All  X  Selected \_\_\_\_\_

If "All", provide the report date for the next full review:  Fall 2007

If "Selected", provide the report date for remaining outcomes: \_\_\_\_\_

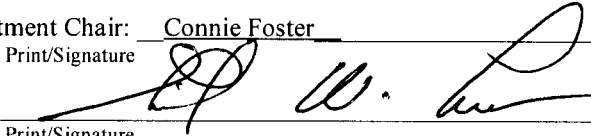


**COURSE ASSESSMENT REPORT**

Submitted by:

Name: Connie Foster \_\_\_\_\_ Date \_\_\_\_\_  
Print/Signature

Department Chair: Connie Foster \_\_\_\_\_ Date: \_\_\_\_\_  
Print/Signature

Dean:  \_\_\_\_\_ Date: 11/28/2006  
Print/Signature