Community College of Denver

Mammography Program

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Mission of the Program

The mission of the Mammography Certificate Program within the Radiologic Sciences Program, is to pledge to provide the health care community with ethical, competent, and professional mammography technologists.

Program Student Learning Outcomes

In the mammography program, all program student learning outcomes (PSLO) are mapped to CCD's institutional outcomes as shown below.

- **PSLO 1:** Mammography students will identify the components of the imaging equipment. They will apply their knowledge through an online test which includes specific questions about the function and purpose of each part of the equipment. (mapped to ethical and effective users of technology)
- **PSLO 2:** Mammography students will demonstrate evidence of complex thinking skills through a comprehensive case study that starts with the scheduling of a patient, preparation, applied protocols, image acquisition, examination review, pathology, and reporting, interventional procedures, to final prognosis. (mapped to complex thinking)
- **PSLO 3:** Mammography students will effectively communicate with patients and families, radiologists, peer technologists, and other departmental personnel to acquire adequate diagnostic images for an appropriate diagnosis. (mapped to effective communicator)

Curriculum Map

	RTE 250 Mammography	RTE 291 Mammography Internship I	RTE Mammography Internship II	RTE 291 Mammography Internship III if applicable	RTE 291 Mammography Internship IV if applicable	RTE 291 Mammography Internship V if applicable
I. Complex Thinker Mammography students will demonstrate critical thinking and problem solving skills through image analysis, construction of protocols and processes, and image acquisition based on patient variables.	IE	I E A	E C	N/C or C	N/A or C	N/A or C
2. Effective and Ethical User of Technology Mammography students will exhibit technical literacy of mammography equipment and accompanying technology used in image	I E A	I E A	E C A	N/C or C	N/C or C	N/C or C

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evaluation and quality assurance procedures.						
3. Effective Communicator Mammography students will effectively communicate with patients and families, radiologists, peer technologists, and other departmental personnel to acquire adequate diagnostic images for an appropriate diagnosis.	I E A	I E A	EC	N/C or C	N/C or C	N/C or C

Key:

I + Introduced

E= Emphasized

C= Competent

A= Currently Formally Assessed

N-not applicable

Assessment Plan

Below is a table of how each PSLO is assessed and how the results are reported.

PSLO	Assessment measure, how?	Population, whom?	Reporting
1. Mammography students will identify the components of the imaging equipment They will apply their knowledge through an online test which includes specific questions about the function and purpose of each part of the equipment.	RTE 250 Mammography will use a formative assessment to measure this learning outcome. The online course will present a topical exam which must be completed with 80% to progress. The number of attempts will be measured for this outcome. RTE 291 Internships will use a Professional Development Assessment tool to measure the clinical skill and use of the mammography equipment. The section used in the evaluation has a	Mammography certificate students. These students are registered through the American Registry of Radiologic Technologists (ARRT) and are obtaining postprimary certification.	Mammography Program Coordinator/ Instructor will evaluate the outcomes which could lead to a change in curriculum if warranted. Results will be discussed with the RTE Advisory Board

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value of 10 points. The scores form this tool will be averaged over the number of times it was used.	
times it was used.	
The benchmark is	
8/10.	

PSLO	Assessment	Population,	Reporting
	measure, how?	whom?	
2. Mammography students will demonstrate evidence of complex thinking skills through a comprehensive case study that starts with the scheduling of a patient, preparation, applied protocols, image acquisition, examination review, pathology, and reporting, interventional procedures, to final prognosis.	RTE 291 Internship I, will use an image quality evaluation tool completed by the student and the clinical instructor independently, then will be compared. The scores will be compared for similarities and differences. Overall scores will be evaluated for positioning accuracy, as well as differences between the student and instructor to evaluate image criteria application. RTE 291 Internship II Case Study graded with rubric which is a final evaluation to demonstrate program competency.	Mammography certificate students. These students are registered through the American Registry of Radiologic Technologists (ARRT) and are obtaining postprimary certification.	Mammography Program Coordinator/ Instructor will evaluate the RTE 291 outcome which could lead to a change in curriculum if warranted. The Mammography Coordinator will evaluate the outcome of the final case study project which could lead to a change in curriculum if warranted. Results will be discussed with the RTE Advisory Board

Linking PSLOs, Assessment Methods, and Reports/Use Mammography 2017-2018 AY

PSLO	Assessment	Population,	Reporting
	measure, how?	whom?	
3. Mammography students will effectively communicate with patients and families, radiologists, peer technologists, and other departmental personnel to acquire adequate diagnostic images for an appropriate diagnosis.	RTE 250 uses an embedded section of questions in an online exam on the topic of patient history and communication. These scores will be averaged. A benchmark has not been set since this is the first use of this online course. RTE 291 will use the professional development assessment tool, the sections related to patient care will be scored and averaged and are valued at 30 points. 24/30 points are required to progress.	Mammography certificate students. These students are registered through the American Registry of Radiologic Technologists (ARRT) and are obtaining post-primary certification.	Mammography Program Coordinator/ Instructor will evaluate the RTE 291 outcome which could lead to a change in curriculum if warranted. The Mammography Coordinator will evaluate the outcome of the final case study project which could lead to a change in curriculum if warranted. Results will be discussed with the RTE Advisory Board

Time Line (Schedule) of when each will be assessed

Mammography PSLO 1 First semester (didactic course RTE 250) and during the first and second internships, which occur consecutively after the didactic course is successfully completed.

Mammography PSLO 2 First and second, or final internship, whichever comes first as determined by the mammography lead/clinical coordinator.

Mammography PSLO 3 First semester (didactic course RTE 250) and during the first and second internships, which occur consecutively after the didactic course is successfully completed.

What do you do with the results - how do you use them to improve the program?

The collected data trends and results are discussed with the RTE faculty during the RTE Assessment meetings that occur twice a semester in early fall and late spring. Next, a report is written by the RTE Program Director during the summer semester that includes the trends and benchmarks. The results are also discussed at the monthly faculty/clinical instructor meetings and changes are made as necessary, to the course, the assessment rubric, or the program, either immediately or applied in the following academic year.

The written report, which includes recommendations or changes, is shared with the RTE Advisory Board members through email early fall semester with any solicited comments. The prior year plan results are discussed at the Fall Advisory Board meeting, as well as the current plan, with any revisions for the next academic year.

The 2017-18 AY is the first cycle for these PSLO's and will assessed for a three year cycle to check for trends and benchmark attainment, which could include modifications. When the loop is closed, other assessments will be developed.