CITY COLLEGE OF SAN FRANCISCO

Diagnostic Medical Imaging
Department of Radiologic Sciences

Outcomes Assessment Plan – Spring 2022

Goal 1: Students will demonstrate CLINICAL COMPETENCE								
Student Learning Outcomes	**Assessment Tool**	**Timeframe**	**Benchmark**	**Spring 2020**	**Fall 2020**	**Spring 2021**	**Fall 2021**	**Spring 2022**
1.1: Student will apply positioning skills	1.1.1: DMI 51A Lab, final positioning practical, section 5	2nd Semester (formative)	90%	88.90%	94.40%	89.70%	97.90%	94.44%
	1.1.2: DMI 68, Student Clinical Evaluation, section 2.2	Final Semester (summative)	2.7	2.5	2.89	2.78	2.77	2.88
1.2: Students will practice radiation protection	1.2.1: DMI 51A Lab, final positioning practical, section 9	2nd Semester (formative)	90%	90%	91.70%	90.60%	100%	93.33%
	1.2.2: DMI 68, Student Clinical Evaluation, section 5	Final Semester (summative)	2.7	2.87	2.96	2.91	3	2.98

Analysis

1.1.1: Benchmark met. Student learning was maintained because students had additional time practicing in the lab. Students achieved program-level SLO's by using positioning correctly throughout the lab and not just during the final practical.

1.1.2: Benchmark met. Student learning was maintained because clinical staff and preceptors worked diligently with intern students. Students achieved program-level SLO's by focusing on patient positioning on diagnostic radiographic exams.

1.2.1: Benchmark met. Student learning was maintained because faculty required students to use proper radiation protection techniques while practicing in the lab. Students achieved program-level SLO's by using lead shielding throughout the lab and not just during the final practical.

1.2.2: Benchmark met. Student learning was maintained because preceptors continued to emphasize and follow radiation protection protocols. Two clinical sites have altered their requirements on lead shielding. The policy change has required the Student Clinical Evaluation to be altered to reflect those changes. Students achieved program-level SLO's by following proper radiation protection protocol.

Action Plan

1.1.1: A pattern is developing where the benchmark is being met in the Fall and not in the Spring. Faculty will continue to emphasize the importance of positioning skills, reinforce best practices, and encourage students to work diligently during lab times. Extra time will be given to students at the beginning of the lab to practice positioning as a group.

1.1.2: Faculty and Clinical Preceptors will continue to emphasize the importance of positioning skills and reinforce best practices.

1.2.1: Faculty will continue to emphasize the importance of radiation safety.

1.2.2: Faculty will continue to monitor this outcome.

Re-Evaluation Date

At the conclusion of Fall 2022

Goal 2: Students will demonstrate CRITICAL THINKING								
Student Learning Outcomes	**Assessment Tool**	**Timeframe**	**Benchmark**	**Spring 2020**	**Fall 2020**	**Spring 2021**	**Fall 2021**	**Spring 2022**
2.1: Students will analyze radiographic images	2.1.1: DMI 51B, final exam, image critique questions	2nd Semester (formative)	90%	83.3%	83.3%	82.0%	76.0%	85.0%
	2.1.2: DMI 68, Student Clinical Evaluation, section 2.7	Final Semester (summative)	2.7	2.7	2.87	3	2.77	2.88
2.2: Students will manipulate technical factors	2.2.1: DMI 50A, written lab, Three-Dimensional Thinking – Part Two	1st Semester (formative)	90%	100.0%	100.0%	100.0%	100.0%	100.0%
	2.2.2: DMI 68, Student Clinical Evaluation, section 2.3	Final Semester (summative)	2.7	2.7	2.89	2.89	2.77	2.75

Analysis

2.1.1: Benchmark not met. Students scored 5% lower than the benchmark. Historically, the assessment committee has discussed ways to improve the average score for this SLO. The assessment committee previously discussed reducing the benchmark; however, the committee rejected the idea to review this assessment tool further.

2.1.2: Benchmark met. DMI 68 students present a case study called a "site visit presentation." In this presentation, they go over every aspect of radiography, including analyzing radiographic images. This presentation helps solidify student knowledge of the area.

2.2.1: Benchmark met. This lab demonstrates the importance of spatial reasoning and how to manipulate technical factors to visualize an image. Students must take images of different objects with varying densities to discuss how technical factors change the image quality.

2.2.2: Benchmark met. DMI 68 students are encouraged, and in many cases required, to use manual techniques. Even if AEC is available, students use manual techniques. These techniques are also discussed during site visits, and students are randomly asked how they would manipulate technical factors for a given situation.

Action Plan

2.1.1: The assessment committee will continue to monitor the data. The faculty and the assessment committee agree the current score is appropriate when compared to similar scores spanning the past 20-years. If there is a significant change to this score, the faculty and the assessment committee will discuss the change.

2.1.2: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

2.2.1: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

2.2.2: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

Re-Evaluation Date

At the conclusion of Fall 2022

Goal 3: Students will demonstrate an understanding of PROFESSIONALISM								
Student Learning Outcomes	**Assessment Tool**	**Timeframe**	**Benchmark**	**Spring 2020**	**Fall 2020**	**Spring 2021**	**Fall 2021**	**Spring 2022**
3.1: Students will demonstrate professional ethics	3.1.1: DMI 52: ethics exam	2nd Semester (formative)	90%	95.0%	97.0%	90.0%	no data	96.0%
	3.1.2: DMI 68, Student Clinical Evaluation, section 3	Final Semester (summative)	2.7	2.9	2.92	2.9	2.9	2.81
3.2: Students will demonstrate an appreciation for radiologic sciences	3.2.1: Number of DMI graduates who continue to a Bachelor's degree program	Post-Graduation	20%	no data	no data	37.50%	22.22%	0.00%
	3.2.2: Number of current students who are members of a professional radiologic society	All students	25%	47.9%	25.6%	51.0%	51.0%	53.1%

Analysis

3.1.1: Benchmark met. The students achieved program-level student learning outcomes by completing assignments discussing ethics.

3.1.2: Benchmark met. DMI 68 students demonstrate ethics by following policy and procedures. If a student receives counseling on their behavior, their grade in section three of the student clinical evaluation will be lowered.

3.2.1: Benchmark not met. Students scored 20% lower than benchmark. The instructor for DMI 100 discusses options for students who are interested in continuing their education.

3.2.2: Benchmark met. The students achieved program-level student learning outcomes by faculty encouraging students to register for professional organizations. The faculty discussed the benefits and importance of radiologic societies. A few students have mentioned they are interested in the ASRT's Student Leadership Program.

Action Plan

3.1.1: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

3.1.2: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

3.2.1: The instructor for DMI 100 is looking for a recent graduate who continued their education to come speak during a class to help encourage the students.

3.2.2: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

Re-Evaluation Date

At the conclusion of Fall 2022

Goal 4: Students will demonstrate effective COMMUNICATION skills in the medical environment								
Student Learning Outcomes	**Assessment Tool**	**Timeframe**	**Benchmark**	**Spring 2020**	**Fall 2020**	**Spring 2021**	**Fall 2021**	**Spring 2022**
4.1: Students will demonstrate oral communication skills	4.1.1: DMI 51A Lab, final positioning practical, section 1	2nd Semester (formative)	90%	90.0%	100.0%	100.0%	100.0%	100.0%
	4.1.2: DMI 68, Student Clinical Evaluation, section 1.1, 1.2, and 1.3	Final Semester (summative)	2.7	2.87	2.85	2.85	2.92	2.79
4.2: Students will practice written communication skills	4.2.1: DMI 50A, Research paper	1st Semester (formative)	90%	76.7%	87.0%	79.0%	92.4%	85.0%
	4.2.2: DMI 66, Research paper	Rotation Semester (summative)	90%	93.0%	no data	no data	no data	78.0%

Analysis

4.1.1: Benchmark met. The students achieved program-level student learning outcomes by practicing exam introductions.

4.1.2: Benchmark met. The students achieved program-level student learning outcomes by communicating clearly with patients, physicians, co-workers, peers, and other departments and is readily understood.

4.2.1: Benchmark not met. Students scored 5% lower than benchmark.

4.2.2: Benchmark not met. Students scored 12% lower than benchmark. This was the first outcome of a cohort writing three research papers. This DMI 66 was the culmination of the knowledge learned about writing research papers.

Action Plan

4.1.1: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

4.1.2: We will continue to gather data and monitor this trend. If it continues to stay above benchmarks, the Assessment Committee will find a new summative analysis of image analysis.

4.2.1: The assessment committee will continue to monitor the data. The faculty and the assessment committee agree the current score is appropriate given the difficulty of the assignment. If there is a significant change to this score, the faculty and the assessment committee will discuss the change.

4.2.2: When reviewing the cohort's spread of grades, the average passing grade was 86.66% and the average non-passing grade was 65%. The instructor for DMI 50B will spend additional class time with the students regarding their research paper. Currently, very little classroom time outside DMI 50A is devoted to the papers.

Re-Evaluation Date

At the conclusion of Fall 2022