

Weber State University  
Biennial Report on Assessment of Student Learning

Department/Program: School of Radiologic Sciences, MSRS Program  
Academic Year of Report: 2022 and 2023 (covering Summer 2021 through Spring 2023)  
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The Institutional Effectiveness website hosts a page for each program that displays assessment reports and information. All available biennial assessment and program review reports are located at the bottom of the program's page on our site. As a part of the biennial report process, we ask that you please review your page for completeness and accuracy, and indicate below the changes that need to be made in sections A-E.

**Program page link:** [https://www.weber.edu/ie/Results/Radiologic\\_ScienceM.html](https://www.weber.edu/ie/Results/Radiologic_ScienceM.html)

### A. Mission Statement

**Information is current; no changes required:** Yes \_\_\_\_\_ **No** \_\_\_\_\_

Update if not current: **There is a small typo in the first sentence. Please use lower case n.**

### B. Student Learning Outcomes

(Please include certificate and associate credential learning outcomes)

**Information is current; no changes required:** Yes \_\_\_\_\_ **No** \_\_\_\_\_

Students completing the Master of Science in Radiologic Sciences will be able to demonstrate the following competencies:

- Patient Care and Education
- Professional Development and Research
- Biologic Effects and Safety
- Clinical Competency and Medical Ethics
- Procedures, Anatomy, and Pathophysiology
- Instrumentation and Quality Control

### C. Curriculum Grid

(Please review your current curriculum grid and verify that at least one course has been identified for each outcome in which you expect your students to demonstrate the desired competency of a graduating student. This could be shown in a variety of ways: classroom work, clinical or internship work, a field test, an ePortfolio, etc. You may request access to the Google Sheet on our site if that is easiest, or we can make the updates. Please reach out to [oie@weber.edu](mailto:oie@weber.edu) if you wish to have access)

**Information is current; no changes required:** Yes \_\_\_\_\_ **No** \_\_\_\_\_

Update if not current

<b>MSRS</b>			
<b>Areas of Emphasis</b>			
	<b>Innovation and Improvement (36)</b>	<b>Radiologist Assistant (RA)(62)</b>	<b>Cardiac Specialist (59)</b>
<b>MSRS Core (12)</b>	MSRS 6100 (3)Research Methods MSRS 6120 (3) Research & Statistics MSRS 6900 (3) Capstone: Clinical Fellowship and Portfolio MSRS 6999 (3)Master's Thesis	MSRS 6100 (3)Research Methods MSRS 6120 (3) Research & Statistics MSRS 6900 (3) Capstone: Clinical Fellowship and Portfolio MSRS 6999 (3)Master's Thesis	MSRS 6100 (3)Research Methods MSRS 6120 (3) Research & Statistics MSRS 6900 (3) Capstone: Clinical Fellowship and Portfolio MSRS 6999 (3)Master's Thesis
<b>Supportive Courses</b>	<b>Students select 24 hours of credit</b>	<b>All supportive courses required for certification</b>	<b>All supportive courses required for certification</b>
	MSRS 6140 (3)Clinical Laboratory Correlation MSRS 6150 (3) Grant Writing for the Imaging Clinical Scientist MSRS 6200 (3) Population Health in Radiologic Sciences MSRS 6210 (3) Global Health in Medical Imaging MSRS 6220 (3) International Competency in Medical Imaging MSRS 6443 (3) Clinical Pathways MSRS 6450 (3) Managing Health Information MSRS 6461 (3) Leadership in Clinical Practice MSRS 6463 (3) Problem Patient Management MSRS 6481 (3) Current Trends in Pediatric Imaging MSRS 6482 (3) Current Trends in Cardiovascular Imaging MSRS 6483 (3) Musculoskeletal Sonography MSRS 6485 (3) Current Trends in Visual Analytics MSRS 6486 (3) Pathological Review Across Imaging Modalities MSRS 6487 (3) Current Trends in Pain Management MSRS 6493 (3) Advanced 3D Medical Imaging MSRS 6992 (1-3) Seminar MSRS 6850 (3) Study Abroad	MSRS 6130 (3) Functional Hemodynamics MSRS 6140 (3)Clinical Laboratory Correlation MSRS 6200 (3) Population Health in Radiologic Sciences MSRS 6403 (3) Evaluation of the Osseous System MSRS 6413 (3) Evaluation of the Chest MSRS 6423 (3) Evaluation of the Abdomen & GI System MSRS 6433 (3) Evaluation of the Genitourinary System MSRS 6443 (3) Clinical Pathways MSRS 6453 (3) Evaluation of the CNS and Facial Structures MSRS 6463 (3) Problem Patient Management MSRS 6473 (3) Nonvascular Invasive Imaging Procedures MSRS 6484 (3) Sonographic Fundamentals for Invasive Guidance MSRS 6860 (3) Clinical Preceptorship MSRS 6861 (3) Clinical Preceptorship MSRS 6862 (3) Clinical Preceptorship MSRS 6863 (3) Vascular Invasive Imaging Procedures MSRS 6910 (2) Transition to Practice	MSRS 6130 (3) Functional Hemodynamics MSRS 6140 (3)Clinical Laboratory Correlation MSRS 6200 (3) Population Health in Radiologic Sciences MSRS 6263 (3) Advanced Diagnostic Services Pharmacology MSRS 6310 (3) Evaluation of the Cardiac System MSRS 6311 (3) Interventional Cardiac Procedures I MSRS 6312 (3) Interventional Cardiac Procedures II MSRS 6313 (3) Interventional Cardiac Procedures III MSRS 6461 (3) Leadership in Clinical Practice MSRS 6493 (3) Advanced 3D Imaging MSRS 6860 (3) Clinical Preceptorship MSRS 6861 (3) Clinical Preceptorship MSRS 6862 (3) Clinical Preceptorship MSRS 6482 (3) Current Trends in Cardiovascular Imaging MSRS 6484 (3) Sonographic Fundamentals for Invasive Guidance MSRS 6910 (2) Transition to Practice

Departmental Competencies Measured for all Radiologic Sciences Programs	Patient Care & Education	Professional Development and Research	Clinical Competency & Medical Ethics	Procedures, Anatomy, and Pathophysiology	Instrumentation & Quality Control	Biological Effects & Safety
<b>MSRS Courses</b>	MSRS 6200 MSRS 6210 MSRS 6220 MSRS 6463 MSRS 6486 MSRS 6850	MSRS 6100 MSRS 6120 MSRS 6150 MSRS 6461 MSRS 6999	MSRS 6263 MSRS 6481 MSRS 6482 MSRS 6860 MSRS 6861 MSRS 6862 MSRS 6900 MSRS 6910	MSRS 6130 MSRS 6140 MSRS 6310 MSRS 6312 MSRS 6313 MSRS 6403 MSRS 6413 MSRS 6423 MSRS 6433 MSRS 6453 MSRS 6483 MSRS 6486	MSRS 6443 MSRS 6450 MSRS 6484 MSRS 6485 MSRS 6493 MSRS 6992	MSRS 6311 MSRS 6473 MSRS 6863

\*The above grid is used for all direct measures of learning. All courses utilize pre- and post-testing with multiple choice questions, case studies, simulated clinical scenarios, and radiographic reconstructed and segmented images, as appropriate. All MSRS students complete a Master's Thesis project, and within the clinical emphases of RA and Cardiac Specialist, students are required to demonstrate eligibility and success on ARRT and CCI Board examinations. The pass rate is monitored for effective assessment.

This could be shown in a variety of ways: classroom work, clinical orinternship work, a field test, an ePortfolio, etc.

Objective	Internal Measurement	External Measurement	Data / Evidence of Learning
<b>Patient Care &amp; Education</b> The student will demonstrate: a) Patient assessment, monitoring, and management skills inclusive of responding to diverse patient populations. b) Patient education, safety, and comfort skills	Successful Completion of Courses: MSRS 6200 MSRS 6210 MSRS 6220 MSRS 6463 MSRS 6486 MSRS 6850	a) Graduate Surveys and Advisory Board Evaluations and Recommendations b) ARRT & CCI Certification Pass Rates	<b>Formative Assessment:</b> a) Students discuss appropriate patient care skills during online and face to face discussions. b) Student demonstrate patient care skills through clinical education and simulation. c) Students participate in global research, global competency coursework, and or study abroad. Evidence is based on journal entries, group research agendas, and overall changes in

			<p>attitudes/behaviors toward diverse patient populations.</p> <p><b>Summative Assessment:</b></p> <p>a) Students complete clinical competencies related to patient care.</p> <p>b) Students complete comprehensive examinations and successfully pass patient care sections of their Board examinations.</p> <p>c) Students complete the Master’s Thesis with a tie to global competency and/or diversity.</p> <p>c) Faculty review individual course, graduate, and employer evaluations.</p>
<p><b>Professional Development &amp; Research</b></p> <p>The student will:</p> <p>a) Knowledge and application of research and learning.</p> <p>b) Assessment of research topics and methods with a lens of diversity, inclusion, and cultural competency.</p>	<p>Successful Completion of Courses:</p> <p>MSRS 6100</p> <p>MSRS 6120</p> <p>MSRS 6150</p> <p>MSRS 6461</p> <p>MSRS 6999</p>	<p>a) Graduate Surveys and Advisory Board Evaluations and Recommendations</p> <p>b) Professional organization (i.e. ASRT, SDMS) membership and participation.</p>	<p><b>Formative Assessment:</b></p> <p>a) Students participate in global research, global competency coursework, and or study abroad. Evidence is based on journal entries, group research agendas, and overall changes in attitudes/behaviors toward diverse patient populations.</p> <p>b) Students learn to support chapters of a MSRS thesis with sound research principles, resources, and grammar. Students complete all components of the MSRS theses over the course of the MSRS core curriculum.</p> <p><b>Summative Assessment:</b></p> <p>a) Students complete case studies, white papers, and statistical analysis of data.</p> <p>b) Students complete the Master’s Thesis with a tie to global competency and/or diversity.</p> <p>c) Students defend and present on their research agenda.</p> <p>d) Students present research via presentations</p>

			and/or posters for professional organizations.
<p><b>Clinical Competency &amp; Medical Ethics</b> The student will demonstrate:</p> <p>a) Legal, professional, and ethical responsibility b) Clinical competency, professionalism, and lifelong learning.</p>	<p>Successful Completion of Courses: MSRS 6263 MSRS 6481 MSRS 6482 MSRS 6860 MSRS 6861 MSRS 6862 MSRS 6900 MSRS 6910</p>	<p>a) Graduate Surveys and Advisory Board Evaluations and Recommendations b) ARRT &amp; CCI Certification Pass Rates</p>	<p><b>Formative Assessment:</b> a) Students discuss professionalism, medical ethics, and law during online and face to face discussions and incorporate current literature from professional sources. b) Students simulate procedures via role play and/or simulation technology. c) Clinical instructors/preceptors evaluate their student(s) multiple times throughout the semester on professionalism, patient care, and competency.</p> <p><b>Summative Assessment:</b> a) Students must submit a comprehensive application for certification examinations that outline the professional and ethical responsibilities of a certified professional. b) Students document clinical hours, competencies, and evaluations as evidence of their certification eligibility. c) Certification pass rates are reviewed yearly.</p>
<p><b>Procedures, Anatomy, and Pathophysiology</b> The student will demonstrate:</p> <p>a) Knowledge of anatomy, physiology, and pathophysiology</p>	<p>Successful Completion of Courses: MSRS 6130 MSRS 6140 MSRS 6310 MSRS 6312 MSRS 6313 MSRS 6403 MSRS 6413 MSRS 6423 MSRS 6433 MSRS 6453</p>	<p>a) Graduate Surveys and Advisory Board Evaluations and Recommendations b) ARRT &amp; CCI Certification Pass Rates</p>	<p><b>Formative Assessment:</b> a) Students simulate procedures via role play and/or simulation technology. b) Students identify anatomy and pathology in case review and case study presentations.</p> <p><b>Summative Assessment:</b> a) Students complete comprehensive examinations, and student scores are compared to certification requirements and outcomes. b) Certification pass rates are reviewed yearly.</p>

	MSRS 6483 MSRS 6486		
Instrumentation & Quality Control The student will demonstrate: a) Appropriate application of technical training.	Successful Completion of Courses: MSRS 6443 MSRS 6450 MSRS 6484 MSRS 6485 MSRS 6493 MSRS 6992	a) Graduate Surveys and Advisory Board Evaluations and Recommendations b) ARRT & CCI Certification Pass Rates	<b>Formative Assessment:</b> a) Students simulate procedures via role play and/or simulation technology. b) Students involve themselves in Advanced technologies including, but not limited to: sonographic POCUS procedures, 3D imaging, and AI  <b>Summative Assessment:</b> a) Students complete comprehensive examinations to demonstrate competency. b) Students identify new technologies and training in their student portfolio.
Biological Effects and Assessment The student will demonstrate: a) Appropriate patient safety.	Successful Completion of Courses: MSRS 6311 MSRS 6473 MSRS 6863	a) Graduate Surveys and Advisory Board Evaluations and Recommendations b) ARRT & CCI Certification Pass Rates	<b>Formative Assessment:</b> a) Students simulate and practice radiation safety via role play and/or simulation technology.  <b>Summative Assessment:</b> a) Students complete comprehensive examinations to demonstrate competency. b) Students gain pertinent signatures from certified experts in their field of study during clinical education.

#### D. Program and Contact Information

Information is current; no changes required: Yes       No      

Update if not current:  
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**E. Assessment Plan**

We have traditionally asked programs to report on outcome achievement by students at the course level. We are encouraging programs to consider alternative assessment approaches and plans that are outcome-based as opposed to course-based, though course-based assessment can continue to be used. A complete assessment plan should include:

- a timeline (which courses or which outcomes will be assessed each year),
- an overall assessment strategy (course-based, outcome-based, reviewed juries, ePortfolio, field tests, etc.)
- information about how you will collect and review data
- information about how the department/program faculty are engaged in the assessment review.
- **Information is current; no changes required: Yes No**
- Update if not current:

<b>Assessment Plan</b> - All students will complete the courses in each of the 5 categories as required within their emphasis with a summative assessment of 80% or higher.			
<b>Timeline</b>	<b>Objective</b>	<b>Emphasis - Data Reviewed</b>	<b>Program Faculty Engagement</b> <b>Cardiac Specialist:</b> Chris Steelman <b>RA:</b> Dr. Laurie Coburn <b>Innovation:</b> Dr. Robert Walker
Course specific projects and grades are monitored and reviewed at the end of each semester.	<b>Patient Care &amp; Education</b>	<b>Cardiac Specialist</b> – Simulation Projects & Clinical Competency <b>RA</b> – Simulation Projects & Clinical Competency <b>Innovative</b> – Global Competency Presentations	Faculty supervise simulation projects at WSU campus and clinical competencies are supervised by affiliate clinical instructors. All students must complete 100% of all certifying (ARRT or CCI) competencies to qualify for board examinations.  All innovative students are active contributors to the MSRS Research agenda which has a focus on DEI and global competency.



Composite scores, certification exams, and clinical performances are reviewed annually.	<b>Professional Development &amp; Research</b>	<b>Cardiac Specialist</b> – Case study thesis. <b>RA</b> – Case study thesis. <b>Innovative</b> – Research agenda master’s thesis.	All faculty assist students in their research and education for master’s thesis. In our clinical-based emphases, students focus on case study research and presentations. In the Innovation emphasis, the focus is on DEI and global competency.
	<b>Clinical Competency &amp; Medical Ethics</b>	<b>Cardiac Specialist</b> – Clinical Education Competency <b>RA</b> –Clinical Education Competency <b>Innovative</b> – Capstone review	Within the clinical emphases, clinical logbooks are reviewed by WSU faculty on a regular basis and are graded based on clinical skills, behaviors in professionalism, patient care, and clinical hours. Within innovation, students may choose several clinical electives wherein they are required to achieve 80% or higher and approach current trends in practice. A capstone review of learned skills is required in MSRS 6900 and reviewed by Dr. Walker.
	<b>Procedures, Anatomy, and Pathophysiology</b>	<b>Cardiac Specialist</b> – Clinical Competency & body systems coursework. <b>RA</b> –Clinical Competency & body systems coursework. <b>Innovative</b> – Capstone Review	Within the clinical emphases, certified clinical faculty educate students in several body systems and procedures as related to their specialties. All students must achieve above 80% or higher in these courses. Within innovation, students may choose several clinical electives wherein they are required to achieve 80% or higher and approach current trends in practice. A capstone review of learned skills is required in MSRS 6900 and reviewed by Dr. Walker.
	<b>Instrumentation &amp; Quality Control</b>	<b>Cardiac Specialist</b> – Simulation Projects & Clinical Competency <b>RA</b> – Simulation Projects & Clinical Competency <b>Innovative</b> – Capstone Review	Within the clinical emphases, examination competencies cannot be achieved without an understanding of instrumentation, equipment, and quality control. Additionally, students use a cardiac simulator and role play invasive procedures. Innovative students are required to take electives demonstrating current trends in instrumentation and advanced imaging options. These courses require up-to-date information and faculty assistance in providing the most current information, guest speakers, and application specialists. A capstone of learned skills is required in MSRS 6900 and reviewed by Dr. Walker.
	<b>Biological Effects &amp; Assessment</b>	<b>Cardiac Specialist</b> – Simulation Projects & Clinical Competency <b>RA</b> – Simulation Projects & Clinical Competency <b>Innovative</b> – Global Competency Presentations	All students within the clinical emphasis receive training in Biological Effects and Safety. These principles are effectively tested upon during certification examinations and faculty prepare students through comprehensive practice examinations on which students must achieve 80% or higher. Students within the innovative track review the expectations of biological effects in relation to current practice and global health. This is discussed

			during global competency presentations with Dr. Walker and Dr. Parkinson.
Comprehensive External Assessments are reviewed Annually & composite scores are reviewed every 3 years.	<b>Comprehensive Review: External Sources</b>	<ul style="list-style-type: none"> <li>•Employment rates</li> <li>•Advisory Board surveys</li> <li>•Graduate surveys</li> <li>• Institutional review</li> <li>•Student course evaluations</li> <li>•Student exit evaluations</li> <li>•Clinical experience and certification examination results</li> </ul>	In addition to the information above, the following is collected externally to inform us of our graduates' critical thinking, clinical competency, research skills, and program effectiveness.

## F. Student Achievement

Please come back to this section later. The dashboard is being updated and is not yet on Site Manager. OIE will send out an email when it is ready.

Percent and number of students completing degrees within 2 years of achieving 90+ credit hours (or just time to graduation for graduate programs) and a reflection on that metric.

Here are instructions on how to access this information:

1. Log into the eWeber portal
2. Search for, and select the app, "Report Gallery"
3. Agree to the FERPA warning
4. In the Report Gallery search for Program Review Undergraduate - you can enter that text into the search bar or you can scroll down the list of dashboards until you find it.
5. Select the tab at the top labeled "Time to Grad" at the top of the page.
6. Select your Program Unit and Program Level on the right side
7. Select Priority 1 under Priority

You should now be in the right settings for understanding your program's time to graduation. Please reflect on what you are seeing, discuss any highlights or concerns, and outline what initiatives the program is doing to address the numbers shown. If you require assistance or have questions, please email [oi@weber.edu](mailto:oi@weber.edu). You may use a screenshot of the information shown in the dashboard as a part of your report.

\*The report gallery is currently unavailable, and I cannot gather this information.

## G. Evidence of Learning

The acceptable threshold for all student achievement is 80% or above. This meets the standard as determined by our certifying bodies including the ARRT and CCI.

There are a variety of ways in which you can choose to show evidence of learning, including the traditional Evidence of Learning Rubric, the updated Evidence of Learning worksheet, a narrative describing your assessments and evidence of student learning, or other tools such as ePortfolios, Signature Assignments, juried reviews, and so on, or a combination of any of these.

Whichever method you choose, please include:

1. Each learning outcome addressed in the course, and an interpretation of the outcomes as necessary to help outside reviewers understand the learning goals
2. The methods used to assess learning for each outcome – ideally, each outcome will be measured with at least two different methods, e.g., multiple quiz questions and a signature assignment, multiple exam questions and lab reports, course discussions and homework assignments, etc.

**Learning Objectives are reviewed in Section C with both formative and summative assessments.**

3. The threshold of acceptable performance – preferably a multi-stepped threshold, such as “80% of students will score 80% or better on the set of quiz questions” – and brief explanation for why that target was selected

**The acceptable threshold for all student achievement is 80% or above. This meets the standard as determined by our certifying bodies including the ARRT and CCI.**

4. The results of the assessment for each outcome. If possible, include specifics such as the number of students who meet, exceed, or fall short of the threshold.

**Patient Care and Education:** 100% of the students in the program scored 80% or higher at the end of each course list on grid sequence.

**Professional Development and Research:** 98% of the students in the program scored 80% or higher at the end of each course list on grid sequence. 95% of all students will complete the MSRS research agenda thesis and presentation.

**Clinical Competency** 100% of the students in the program scored 80% or higher at the end of each course list on the grid sequence. Complete clinical competency as required by the ARRT and/or CCI credentialing.

**Procedures, Anatomy, & Pathophysiology:** 100% of the students in the program scored 80% or higher at the end of each course list on grid sequence.

**Instrumentation And Quality Control:** 100% of the students in the program scored 80% or higher at the end of each course list on grid sequence.

5. A reflection on, or interpretation of, the findings. For example, if 100% of students correctly answer all quiz questions, might they need

to be too easy?

The overall success of students in patient care, clinical competency, anatomy, and instrumentation is reflected in their scores on board examinations. Currently, the average score on a certifying board examination among students is 81%. To pass, a student must achieve 75% or higher. Thus, the scores are neither too high nor too low as pass rates for all students are above 95%. In regard to research, because of the efforts of faculty and the building of a research agenda, we have had less than 2 students over the past 3 years fail to complete the master's thesis.

6. A plan of action to address the findings, even if the threshold was met, and/or reflection on changes made as a result of (or in the interim since) the last biennial report.

We completed a large curriculum change last year and maintained our core of research for all students, but we felt it would be important to bring in global competency and current trends to enhance the skills assessed among our innovative group. Thus far, we have received excellent feedback from students and advisory boards. Now, each emphasis is more effective at extending clinical skills unique to their focus.

7. How you plan to monitor and assess the success of changes you will make/have made (“close the loop”).

We will complete a full review of the new curriculum at the end of the academic year. We will assess student products (including the thesis, presentations, and comprehensive exams) across the curriculum.

## Appendix A

Most departments or programs receive a number of recommendations from their Five/Seven-Year Program Review processes. This page provides a means of updating progress towards the recommendations the department/program is enacting.

Date of Program Review: 2017	Recommendation	Progress Description
Recommendation 1	Concern: In an effort to assist prospective students to the Department of Radiologic Sciences, a link from the Radiologic Sciences Homepage is recommended.	The MSRS Webpage has been edited and updated by Cathy Wells.
Recommendation 2	Consider space resources for MS program; to grow the program: equipment, classroom and additional faculty. Add new faculty with degrees and a full time Director.	We have managed our growing program through a hybrid model. Also, we have supported faculty progression in earning a post-graduate doctoral degree, and two current faculty members have reached this goal over the years of this assessment. Dr. Tanya Nolan was the Director of the MSRS since 2019, and Dr. Robert Walker has taken on this role since Summer of 2023.
Recommendation 3	Implement new course offering with core and elective as well IPE focused course work ...see examples listed below	We completed a large curriculum update in 2022. Several new courses have been implemented with relevant themes, including global competency and IPE collaboration.
		We continue to recruit International students and expand international opportunities.

Additional narrative:

## Appendix B

Please provide the following information about the full-time *and adjunct faculty* contracted by your department during the last academic year (summer through spring). Gathering this information each year will help with the headcount reporting that must be done for the final Five-Year Program Review document that is shared with the State Board of Regents.

Faculty Headcount	2019-20	2020-21	2021-22	2022-23
<b>With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)</b>				
Full-time Tenured	2	2	2	2
Full-time Non-Tenured (includes tenure-track)	1	1	1	3
Part-time and adjunct	4	4	4	3
<b>With Master's Degrees</b>				
Full-time Tenured	1	1	0	0
Full-time Non-Tenured	0	0	1	2
Part-time and adjunct	0	0	0	1
<b>With Bachelor's Degrees</b>				
Full-time Tenured	0	0	0	0
Full-time Non-tenured	0	0	0	0
Part-time and adjunct	0	0	0	0
<b>Other</b>				
Full-time Tenured	0	0	0	0
Full-time Non-tenured	0	0	0	0
Part-time	0	0	0	0
<b>Total Headcount Faculty</b>				
Full-time Tenured	3	3	2	2
Full-time Non-tenured	1	1	2	5
Part-time	4	4	4	4

## Appendix C

### Please respond to the following questions.

- 1) Looking back at your previous biennial report where you identified strategies for improvement, what progress has been made in implementing improvements?

Our number one focus on the previous biannual report was a focus on increased diversity and global experience. We have progressed in reaching this focus by implementing the new curriculum including courses in global health and international studies. We have also shifted our research agenda to require both discussions and methods including diverse perspectives and culturally competent practices. A key as we move forward is to reinstate Study Abroad and maintain highly diverse coursework supported by industry experts that identify and respond to rapidly changing technology and practices in Radiologic Sciences.

- 2) Please take a few minutes to review the new DFWI dashboard in the Report Gallery. This dashboard allows you to see the percentage of students in each course who earn a D+, D, D-, E, W, UW, or NC grade. The data can be filtered by several parameters. Reflect on the DFWI rates overall and of your underserved minority students versus your Caucasian students:
  - a. What are you seeing?
  - b. What concerns you?
  - c. What additional data could be beneficial?

I am unable to review the Report Gallery as it is not available.

- 3) We have invited you to re-think your program assessment. What strategies are you considering? What support or help would you like?

For future assessment, I believe I would like to create an overarching database wherein faculty may actively input both formative and summative assessment data from their individual courses. In this way, we would have an active and reactive database with shared responsibility from which we could make informed decisions. This would also reduce the arduous task of gathering data that is widely spread across programs.

## Glossary

### Student Learning Outcomes/Measurable Learning Outcomes

The terms ‘learning outcome’, ‘learning objective’, ‘learning competency’, and ‘learning goal’ are often used interchangeably. Broadly, these terms reference what we want students to be able to do AFTER they pass a course or graduate from a program. For this document, we will use the word ‘outcomes’. Good learning outcomes are specific (but not too specific), are observable, and are clear. Good learning outcomes focus on skills: knowledge and understanding; transferrable skills; habits of mind; career skills; attitudes and values.

- Should be developed using action words (if you can see it, you can assess it).
- Use compound statements judiciously.
- Use complex statements judiciously.

### Curriculum Grid

A chart identifying the key learning outcomes addressed in each of the curriculum’s key elements or learning experiences (Suskie, 2019). A good curriculum:

- Gives students ample, diverse opportunities to achieve core learning outcomes.
- Has appropriate, progressive rigor.
- Concludes with an integrative, synthesizing capstone experience.
- Is focused and simple.
- Uses research-informed strategies to help students learn and succeed.
- Is consistent across venues and modalities.
- Is greater than the sum of its parts.

### Target Performance (previously referred to as ‘Threshold’)

The level of performance at which students are doing well enough to succeed in later studies (e.g., next course in sequence or next level of course) or career.

### Actual Performance

How students performed on the specific assessment. An average score is less meaningful than a distribution of scores (for example, 72% of students met or exceeded the target performance, 5% of students failed the assessment).

### Closing the Loop

The process of following up on changes made to curriculum, pedagogy, materials, etc., to determine if the changes had the desired impact.



### Continuous Improvement

An idea with roots in manufacturing, that promotes the ongoing effort to improve. Continuous improvement uses data and evidence to improve student learning and drive student success.

### Direct evidence

Evidence based upon actual student work; performance on a test, a presentation, or a research paper, for example. Direct evidence is tangible, visible, and measurable.

### Indirect evidence

Evidence that serves as a proxy for student learning. May include student opinion/perception of learning, course grades, measures of satisfaction, participation. Works well as a complement to direct evidence.

### HIEE – High Impact Educational Experiences

Promote student learning through curricular and co-curricular activities that are intentionally designed to foster active and integrative student engagement by utilizing multiple impact strategies. Please see <https://weber.edu/weberthrives/HIEE.html>