Weber State University
Biennial Report on Assessment of Student Learning

Cover Page

Department/Program: School of Radiologic Sciences AAS Radiography
Academic Year of Report: 2020/21 (covering Summer 2019 through Spring 2021)
Date Submitted:
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Contact Information:

Report due 11/15/2021

We have updated the Institutional Effectiveness website, which includes an update for each program page. All Biennial Assessment and Program Review reports will now be available on a single page. Please review your page for completeness and accuracy, and indicate on the list below the changes that need to be made. Access your program page from the top-level results page. Select the appropriate college and then your program from the subsequent page.

A. **Mission Statement**

_X__ Information is current; no changes required.

Update if not current:

B. **Student Learning Outcomes**
(please note the addition of certificate and associate credential learning outcomes)
_X__ Information is current; no changes required.

Update if not current:

C. **Curriculum** (please note, we are using Google Sheets for this section so that updates are easier to make)

_X__ Information is current; no changes required.
Update if not current (you may request access to the Google Sheet if that is easiest, or we can make the updates):

(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.)

D. **Program and Contact Information**

__X_ Information is current; no changes required.

Update if not current:

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 will 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, and information about how the department/program faculty are engaged in the assessment review.

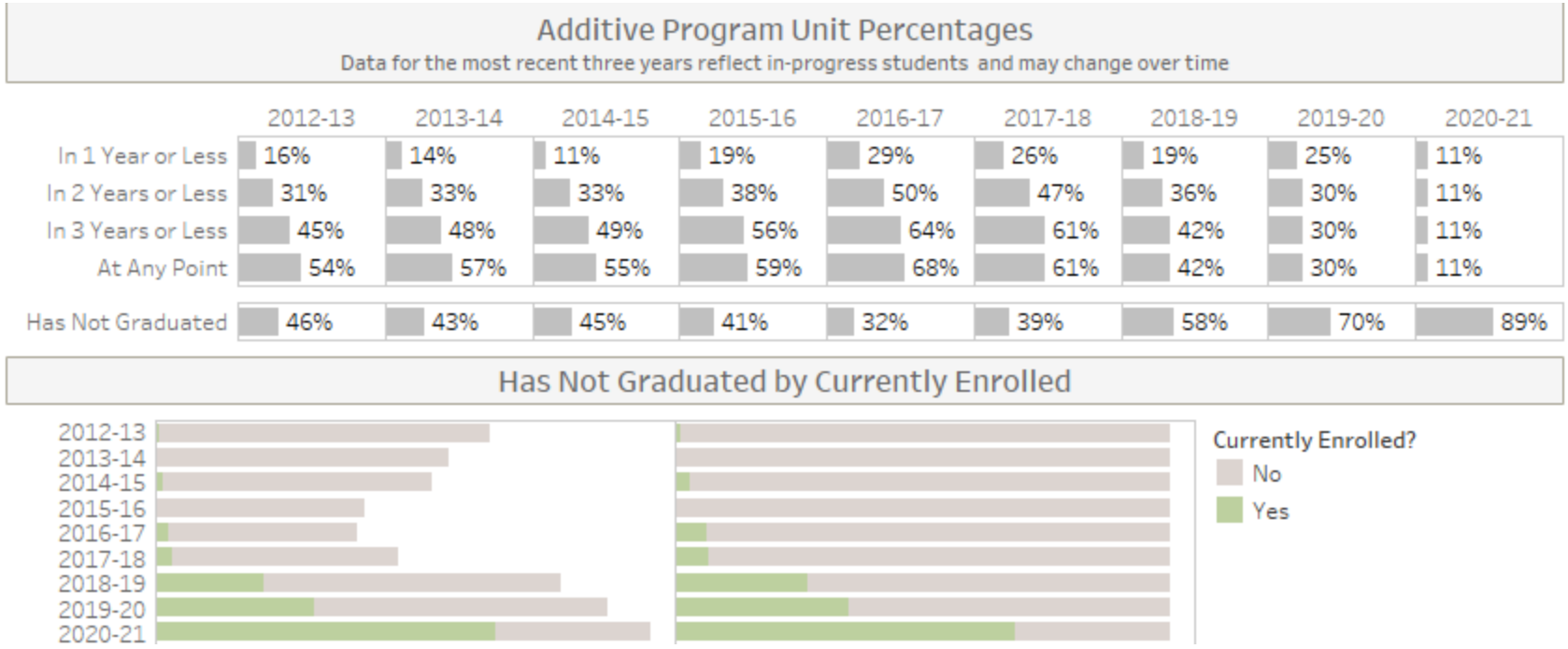
_X__ Information is current; no changes required.

Update if not current:

F. Student Achievement

i. Percent of students completing degrees after 90 credit hours within 2 years and a reflection on that metric (this information can be accessed on the Program Review Undergraduate dashboard – tab labeled, 'Time to Grad from 90CH – please reach out to oie@weber.edu if you need help with this metric). What department initiatives are in place to address this?

ii.



These numbers include all undergraduate programs for the School of Radiologic Sciences as it is not possible to separate AAS from BS degrees.

Evidence of Learning

There are varieties of ways in which departments can choose to show evidence of learning.

1) Course-based assessment
    a. This is the format we have traditionally suggested programs use for assessment. The familiar 'evidence of learning worksheets' are included in the template and can also be accessed from the IE website. The critical pieces to include are:
        i. learning outcomes addressed in the course,
        ii. method(s) of measurement used,
        iii. threshold for 'acceptable – that is, the target performance,
        iv. actual results of the assessment,
        v. interpretation/reflection on findings,
        vi. the course of action to be taken based upon the interpretation,
        vii. how that action will be evaluated.

2) Outcome-based assessment
    a. Moving from course-based to outcome-based assessment has the potential for programs to gather and reflect upon data that are more meaningful, and to connect assessment findings from throughout the program. The approach may be much easier for associates and certificate programs where only select students in classes are earning the credential. For more information email (gniklason@weber.edu)

    b. Reporting options include:
        i. A traditional evidence-of-learning worksheet with an outcome (across multiple courses) as the focus (instead of a course with multiple outcomes).
        ii. A report that is more narrative-based.
        iii. Other tools such as an ePortfolio in which key or signature assignments have been identified by the faculty, and uploaded by the student with their reflection. The key or signature assignments are aligned to student learning outcomes. (ePortfolio is an excellent assessment tool for certificates and associate degrees.)
        iv. There are other approaches such as juried reviews, physical portfolios, field tests, etc.

3) General Education course assessment needs to continue to be reported at the course level using either the traditional template or a more narrative-based format. See the Checklist and Template page for area-specific worksheets as well.

Note: if you cannot download templates directly from this document, please visit our template page for downloads.

A. Evidence of Learning: Courses within the Major
(**this is a sample page for purpose of illustration only**; a blank template can be found on the next page or at this site)

Current learning outcomes	**Courses that correspond to learning outcomes**
Identify the biological effects of radiation.	RADT 1303: 2403; 3404; 2913
Demonstrate proper radiation protection procedures during diagnostic procedures.	RADT 1022; 3 1502/1601; 1512/1621; 1522/1641; 1542/1681; 2861-2865; 2913
Demonstrate proper use and understanding of radiation exposure monitors and diagnostic radiation equipment.	RADT 1303, 2403 1502/1601; 1512/1621; 1522/1641; 1542/1681; 2861-2865; 2913
Demonstrate, select, accurately explain and produce diagnostic quality radiographs.	RADT 1303; 2403; 3443; 1502/1601; 1512/1621; 1522/1641; 1542/1681; 2913
Demonstrate repeated competency in accurately explaining the proper radiographic film radiographic image production, image processing, and digital image formation'	RADT 1303; 2403; 3443; 1502/1601; 1512/1621; 1522/1641; 1542/1681; 2861-2865 2942; 2913
Demonstrate and accurately interpret quality assurance testing.	RADT 1303; 2403; 3443; 1601-1681; 2861-2865; 2913
Demonstrate proper evaluation and critique of radiographic positioning, technical factors, anatomy, physiology and pathology.	RADT1502/1601; 1512/1621; 1522/1641; 1542/1681; 3443; 1301; 2403; 2913
Demonstrate legal and professional responsibility.	RADT 1022; 3003; 3403; 2043; 2913
Demonstrate appropriate patient education, safety and comfort skills.	RADT1022; 2043; 3003; 1502/1601; 1512/1621; 1522/1641; 1542/1681; 2042; 2043; 2913
Demonstrate acceptable methods of infection control and prevention.	RADT1022; 2043; 2042; 3003; 2263; 1502/1601; 15121621; 1522/1641; 1542/1681 2913

Demonstrate proper patient monitoring during radiographic procedures.	RADT 2043; 2042; 3003; 2861-2865; 2913
Demonstrate appropriate responses to diverse patient populations.	RADT 3003; 3043; 2942; 2861-2865; 2913
Demonstrate a sense of professionalism and desire to learn.	RADT 1022; 3003; 3043; 2821-2825; 2913; 2821-2825
Demonstrate working knowledge of radiographic anatomy, structural relationship and pathology	1502/1601; 1512/1621; 1522/1641; 1542/1681; 2272; 2861-2865; 2913

Radiography Program Evidence of Learning

Objective	Internal Measurement	External Measurement	Data Collection
Upon completing the Radiography Program the student will be able to;			
Identify the biological effects of radiation.	Successful Completion of: Radtec 1303; 3403	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3.Every semester
Demonstrate proper radiation protection procedures during diagnostic procedures.	Successful Completion of: Radtec 1022; 3403; 1502/1601; 1512/1621; 1522/1641; 1532/1661; 1542/1681 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Every semester
Demonstrate proper use and understanding of radiation exposure monitors and diagnostic radiation equipment.	Successful Completion of: Radtec 1303, 2403, 3443; 1502/1601; 1512/1621; 1522/1641; 1532/1661;	1. Utah State Practical Technician results Examination	1. Annually 2. Annually

	1542/1681 Clinical Evaluations: Radtec 2861-2865	2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	3. Every semester
Demonstrate, select, accurately explain and produce diagnostic quality radiographs.	Successful Completion of: Radtec 1303; 2403; 3443; 1502/1601; 1512/1621; 1522/1641; 1532/1661; 1542/1681 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Employer Surveys 4. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Every 3 years (next 2018) 4. Every semester
Demonstrate repeated competency in accurately explaining the proper radiographic film processing technique.	Successful Completion of: Radtec 1303; 2403; 3443; 1502/1601; 1512/1621; 1522/1641; 1532/1661; 1542/1681 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Job placement rates 4. Employer Surveys 5. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Annually 4. Every 3 years (next 2018) 5. Every semester
Demonstrate and accurately interpret quality assurance testing.	Successful Completion of: Radtec 1303; 2403; 3443; 1542/1681 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Every semester
Demonstrate proper evaluation and critique of radiographic positioning, technical factors, anatomy, physiology and pathology.	Successful Completion of: Radtec 1502/1601; 1512/1621; 1522/1641; 1532/1661; 1542/1681;	1. Utah State Practical Technician results Examination	1. Annually 2. Annually

	Clinical Evaluations: Radtec 2861-2865	2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	3. Every semester
Demonstrate legal and professional responsibility.	Successful Completion of: Radtec 3003; 3403; 2043; 3423; 1022 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Every semester
Demonstrate appropriate patient education, safety and comfort skills.	Successful Completion of: Radtec 1022; 2043; 3003; 2263; 1502/1601; 1512/1621; 1522/1641; 1532/1661; 1542/1681; Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Every semester
Demonstrate acceptable methods of infection control and prevention.	Successful Completion of: Radtec 1022; 2043; 3003; 2263; 1502/1601; 15121621; 1522/1641; 1532/1661; 1542/1681 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Every semester
Demonstrate proper patient monitoring during radiographic procedures.	Successful Completion of: Radtec 2043; 3003; 2263 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation &	1. Annually 2. Annually 3. Every semester

		Personal & Professional Growth Assessment	
Demonstrate appropriate responses to diverse patient populations.	Successful Completion of: Radtec 3003; 3023 Clinical Evaluations: Radtec 2861-2865	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Clinical Evaluation & Personal & Professional Growth Assessment 4. Employer Surveys 5. Graduate Surveys	1. Annually 2. Annually 3. Annually 4. Every 3 years (next 2018) 5. Every 3 years (next 2018)
Demonstrate a sense of professionalism and desire to learn.	Successful Completion of: Radtec 1022; 3003; 2866 Student acceptance into specialty programs	1. Utah State Practical Technician results Examination 2. ARRT Examination results 3. Employer Surveys 4. Graduate Surveys 5. Exit interviews 6. Clinical Evaluation & Personal & Professional Growth Assessment	1. Annually 2. Annually 3. Every 3 years (next 2018) 4. Every 3 years (next 2018) 5. Annually 6. Every semester
Demonstrate continued competency through lifelong learning.	Student acceptance into specialty programs	1. Employer Surveys 2. Graduate Surveys 3. Exit Interviews 4. Clinical Evaluation & Personal & Professional Growth Assessment	1. Every 3 years (next 2018) 2. Every 3 years (next 2018) 3. Annually 4. Every semester

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: ####	Recommendation	Progress Description
Recommendation 1	Text of recommendation	Additional space would is a need for the school of radiologic science, however, this is unlikely become available. Therefore, the faculty have been creative in utilizing the current space with flexible schedules, lab assistants, and lecture capture technology. Although efforts have been made to adjust for inadequate space, there is still a great need for additional space to better support student learning.
March 15, 2018	Obtain more classroom/lab space	
Recommendation 2	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
Recommendation 3	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
(add as needed)		

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	2018-19	2019-20	2020-21
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	3	3	3
Full-time Non-Tenured (includes tenure-track)	0	1	2
Part-time and adjunct	1	1	1
With Master's Degrees			
Full-time Tenured	1	1	1
Full-time Non-Tenured	6	5	4
Part-time and adjunct	8	8	8
With Bachelor's Degrees			
Full-time Tenured			
Full-time Non-tenured			
Part-time and adjunct			
Other			
Full-time Tenured			
Full-time Non-tenured			
Part-time			
Total Headcount Faculty	19	19	19
Full-time Tenured	4	4	4
Full-time Non-tenured	6	6	6
Part-time			

Please respond to the following questions.

1) Review and comment on the trend of minority students enrolling in your classes (particularly lower-division, GEN Ed) and in your programs.

2) What support (from enrollment services, advising, first-year transition office, access & diversity, etc.) do you need to help you recruit and retain students?

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

4) Finally, we are supporting our Concurrent Enrollment accreditation process. Does your program offer concurrent enrollment classes? If so, have you been able to submit the information requested from the Concurrent Enrollment office? Staff from OIE will reach out to you in the next few months to assist in finalizing that data submission as well as gather information for concurrent Gen Ed assessment.
   None of the courses in Radiologic Sciences are offered through Concurrent Enrollment.

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