

Major/Program: _____

Annual ASSESSMENT of the Major/Program

Fall 2018-Spring 2019

What are the student learning outcomes in the **major/program**?

- Goal 1. Students will demonstrate clinical competence. (SLO 1-6)
- Goal 2. Students will demonstrate effective communication skills. (SLO 7-8)
- Goal 3. Students will demonstrate critical thinking and problem-solving skills (SLO 9-10)
- Goal 4. Students will demonstrate professional values. (SLO 11-12)
- Goal 5. Students will be involved in professional continuing education activities to instill a desire for lifelong learning. (SLO 13)
- Goal 6. Students will be involved in the community we serve. (SLO 14)
- Goal 7. The program will provide the medical community with individuals qualified to perform radiographic procedures. (15-19 Program Effectiveness Measures)

Which outcome(s) did you assess this academic year?

All SLO's are assessed on an annual basis and Program Effectiveness Measures are also updated annually as spelled out in our detailed Assessment Plan provided in the Summary of Data section below.

How did you assess the learning outcomes this academic year?

A variety of methods is used, as described in our Assessment Plan below.

Please **summarize the data** you have collected this academic year.

Goal 1: Students will demonstrate clinical competence.

Student Outcome	Measurement Tool	Benchmark	Timeframe/ Responsible Party	Results	Analysis/Action Plan
------------------------	-------------------------	------------------	-------------------------------------	----------------	-----------------------------

<p>Students will demonstrate competence in positioning skills.</p>	<p>R101 and R201 Lab Competency Evaluations</p>	<p>Overall class average will exceed 90%</p>	<p>1st Year – Fall and Spring Semester</p> <p>Lab Faculty</p> <p>Fall 2018 n= 35 Spr 2019 n= 31</p>	<p>2019= 92.12% (R201)</p> <p>2018= 87.88% (R101)</p> <p>2018= 95.4% (R201)</p> <p>2017= 92% (R101)</p> <p>2017= 88.64 (R201)</p> <p>2016= 90.48% (R101)</p> <p>2016 = 93.24% (R201)</p> <p>2015 = 90% (R101)</p>	<p>Benchmark met for R201, but not for R101, due to five poor performers at midterm evaluations, and six of them performed poorly on the final evaluation. Some of these weak students did not successfully complete R101 and were dismissed from the program, which may be why the benchmark was met in the subsequent semester. In addition, students had more practice correcting their positioning errors using a phantom in R201, which also may have contributed to the increase. The instructors continued to require that the poor performers practice with an instructor, as well as repeat until successful.</p>
--	---	--	--	---	--

	R283 General Competency Evaluation Forms Section D 1-14	100% of graduates will pass the required number of general competency evaluations with an overall class average that exceeds 85% on the first attempt required for mastery.	2 nd Year –Fall Semester Clinical Faculty 2019 n = 33	2019= 96.97% 2018= 89.29%	Benchmark met. This is a new tool to this student learning outcome, but it was used to measure student outcome #2.
Students will demonstrate continued competence in positioning skills.	R290 – General Competency Evaluation Form Section D 1-14	100% of graduates will pass the required number of general competency with and overall class average that exceeds 85% on the first attempt required for mastery.	2 nd Year –Spring Semester Clinical Faculty 2019 n = 32	2019= 93.75% 2018= 92.26%	Benchmark met. This tool used to measure positioning skills, rather than continued competence skills, as it is assessed in the final clinical course.
Students will select appropriate technical factors.	R281 Technique Quizzes (spine and chest)	Overall class average will exceed 90% (13.5/15 points)	1 st year – Spring Semester Clinical Faculty 2019 n = 31	2019= 84.09% 2018= 90.85% 2017= 92.73% 2016 = 92.53%	Benchmark not met. We had five students who scored below 60%, which resulted in a low overall percentage. Action plan includes adding technique worksheets in lab to better prepare the students for these quizzes. In addition, the students will be required to compile their own technique guides.

	R283 Technique Quizzes	Overall class average will exceed 90% (13.5/15 points)	2 nd year- Fall Semester Clinical Faculty 2018 n = 33	2018= 89.39%	Benchmark not met, but the percentage is close. The same action plan will be utilized as for the R281 technique quiz outlined above.
4. Students will demonstrate continued competence in selecting appropriate technical factors.	R290 Comprehensive Technique Quiz	Overall class average will exceed 85% (42.5/50 points)	2 nd Year –Spring Semester Clinical Faculty 2019 n = 32	2019= 85.59%	Benchmark met. This is a new measurement tool and was the first time the students had this type of assessment that involved critical thinking scenarios in addition to other technique-specific questions.
5. Students will evaluate radiographic images for quality factors.	R290 – Comprehensive Final Written Exam	Overall class average will exceed 85% on the first attempt.	2 nd Year Spring semester Course Instructor 2019 n = 32	2019= 87.40% 2018= 90.21% 2017= 85.52% 2016 = 89.37% 2015 = 87.13% 2014 = 86.07%	Benchmark met. Students continue to do well on the comprehensive final exam. Preparation for this exam now involves weekly image critique labs during the final clinical course (Spring), which have a new format. To further prepare the students for this important evaluation, image critique labs will be implemented in the Fall semester, too.

6. Students will practice radiation protection.	R260 Radiation Biology and Protection Final Exam Grades	Average score of 85% or higher	2 nd Year – Spring Semester Course Instructor 2019 n = 32	2019= 84.03% 2018= 99% 2017= 88.65% 2016 = 91.60% 2015 = 90.05% 2014 = 93.10%	Benchmark not met. There were five students who did not pass this comprehensive exam, which decreased the overall average. In addition, a new course instructor taught this class, which also may have impacted the average. While this is a cognitive tool, the faculties believe it is the foundation for safe practice. Continue to monitor this tool and devise an action plan if the scores fall below 85%.
	R290 - General Competency Evaluation Form E 1-2	100% of graduates will pass the required number of general competency evaluations with an overall class average that exceeds 85% on the first attempt required for mastery.	2 nd Year – Spring Semester Clinical Instructor 2019 n = 32	2019= 99.48% 2018= 99.40%	Benchmark met. This is a revised tool, which seems to be appropriate to measure how well students practice radiation protection. Faculty will continue to monitor this new tool.

Goal 2: Students will demonstrate effective communication skills.

Outcome	Measurement Tool	Benchmark	Timeframe/ Responsible Party	Results	Analysis/Action Plan
---------	------------------	-----------	------------------------------	---------	----------------------

Students will demonstrate written communication skills.	R202 Case Study evaluating a poor radiographic image	Overall class average on the case study will exceed 85% (85/100 points).	1 st Year – Spring Semester Course Instructor 2019 n= 32	2019= 87.19% 2018= 87.46% 2017= 87.21% 2016 = 86.68% 2015 = 88.26% 2014 = 85.42%	Benchmark met. This tool seems to be a good measure of the students' writing ability. The case study is 8-10 pages and is the longest of the writing assignments in the curriculum.
	R205 Pamphlet	Overall class average on this assignment will exceed 85% (42.5/50 points)	2 nd Year – Fall Semester Course Instructor 2018 n= 32	2018= 86.38% 2015 = 85.06% 2014 = 85.4% 2013 = 82.76% 2012 = 83.96%	Benchmark met this year. This is an older tool that we used until 2016. A new course instructor decided to use this older tool, so we added the old data, for comparison purposes.
	R260 Research Paper	Overall class average will exceed 90% (45/50 points)	2 nd year – Spring Semester 2019 n = 32	2019= 90.19% 2018= 99.46% 2017= 83.36% 2016 = 86.7%	Benchmark met. The faculty will continue to monitor this tool.
2. Students will demonstrate oral communication skills.	R281 Professional Skills Development Evaluation Item 3 a-e	Class average of 85%	1 st Year – Spring Semester Clinical Faculty 2019 n= 31	2019= 87.61% 2018= 88.06% 2017= 87.45% 2016 = 87.43% 2015 = 88.28% 2014 = 88.0%	Benchmark met. This tool seems to be a good measure of the students' oral communication abilities.

	R202 Lab Report	Overall class average will exceed 90% (9/10 points)	1 st Year – Spring Semester 2019 n = 31	2019= 99.4% 2018= 99.7% 2017= 96.1% 2016 = 97.9% 2015 = 98%	Benchmark met. This measurement tool seems to be appropriate for evaluating students' oral communication skills in the 1 st year of the program.
	R290 Professional Skills Development Evaluation Item 3 a-e	Class average of 85%	2 nd Year – Spring Semester Clinical Faculty 2019 n = 32	2019= 93.06% 2018= 92.43% 2017= 91.19% 2016 = 92.40% 2015 = 91.27% 2014 = 90.9%	Benchmark met. This measurement seems to be a good indicator of the students' oral communication abilities demonstrated at clinicals. When comparing first-year to second-year students, there seems to be some improvement.

Goal 3: Students will demonstrate critical thinking and problem-solving skills

Outcome	Measurement Tool	Benchmark	Timeframe/ Responsible Party	Results	Analysis/Action Plan
Students will detail procedural and technical adaptations for a trauma patient.	R290 Critical Thinking scenario on a trauma patient	Overall class average on the R290 critical thinking scenario will exceed 85%.	2 nd Year – Spring Semester Clinical Instructors 2019 n = 32	2019= 93.03% 2018= 85.5% 2017= 83.52% 2016 = 88.77% 2015 = 88.63% 2014 = 83.79%	Benchmark met. This is the highest average that we have had for this measurement tool. High scores may be due to more emphasis on teaching the critical thinking process in steps using Patient Care book chapter.

	R205 Trauma Group Assignment	Overall class average will exceed 85% (17/20 points)	2 nd Year – Fall Semester 2018 n = 32	2018= 92.35% 2017= 93.43% 2016= 88.55% 2015 = 92.7% 2014 = 86.85%	Benchmark met. This became a graded forum discussion in 2017 so all students benefit from reading each of the groups' work.
2. Students will evaluate the quality of radiographic images and procedures.	R 290 Comprehensive Final Written Clinical Exam	Class average will exceed 85% on first attempt.	2 nd Year – Spring Semester Course Instructors 2019 n= 32	2019= 87.4% 2018= 90.21% 2017= 85.52% 2016 = 89.37% 2015 = 87.13% 2014 = 86.07%	Benchmark met.

Goal 4: Students will demonstrate professional values.

Outcome	Measurement Tool	Benchmark	Timeframe/ Responsible Party	Results	Analysis/Action Plan
Students will demonstrate appropriate professional values in the clinical setting.	R281 Professional Skills Development Evaluation Mid - term and Final average	Class average will exceed 85%	1 st Year – Spring Semester Clinical Instructor 2019 n = 31	2019= 88.28% 2018= 89.56% 2017= 88.2% 2016 = 89.04% 2015 = 89.18% 2014 = 88.48%	Benchmark met. The clinical instructors regularly monitor the overall professional skills of their students and report them twice a semester. This continues to be a good tool for assessing the students.

	R290 Professional Skills Development Evaluation Mid-term and Final average	Class average will exceed 85%	2 nd Year – Spring Semester Clinical Instructor 2019 n = 32	2019= 93.18% 2018= 92.05% 2017= 92.26% 2016 = 92.60% 2015 = 91.27% 2014 = 90.84%	Benchmark met. The average grade increases consistently from first to second year.
Students will detail the ethical obligations described in the ARRT Code of Ethics.	R182 Critical Thinking Scenario on Professional Ethics	Class average will exceed 85%	1 st Year – Fall Semester Clinical Instructor 2018 n = 35	2018= 88.37% 2017= 88.53% 2016= 90.12% 2015 = 91.26% 2014 = 90.64%	Benchmark met. This measurement tool continues to be a good method to assess professional values.
	R100 Forum Discussion on Ethical Dilemma	Overall class average will exceed 85%.	1 st Year – Summer Semester Course Instructor 2019 n= 35	2019= 86.3% 2018= 83.82% 2017= 95.97% 2016 = 71.51% 2015 = 79%	Benchmark was met. Grading rubric was redesigned to improve the grading procedure. The action plan is to share the grading rubric with the students in advance and provide more clear instructions and expectations for the students.

Goal 5: Students will be involved in professional continuing education activities to instill a desire for lifelong learning.

Outcome	Measurement Tool	Benchmark	Timeframe/ Responsible Party	Results	Analysis/Action Plan
---------	------------------	-----------	------------------------------	---------	----------------------

Students will participate in professional continuing education through the investigation of an emerging technology.	R222 Article summary in Canvas related to an emerging technology at RSNA.	Overall class average will exceed 90% (22.5/25 points)	2 nd Year – Fall semester Course Instructor 2018 n = 32	2018= 99.8% 2017= 97.08% 2016= 100% 2015 = 90%	Benchmark met. This assignment continues to be well-received by the students and course instructor.
---	---	--	--	---	---

Goal 6: Students will be involved in the community we serve.

Outcome	Measurement Tool	Benchmark	Timeframe/ Responsible Party	Results	Analysis/Action Plan
Student will reflect on their participation in a community service activity.	R205 Students participate in an activity such as the Breast Cancer Walk and beginning prepare a Reflection paper on the value of community service in their lives.	Overall class average will exceed 90% (9/10 points)	2 nd Year – Fall semester Course Instructor 2018 n = 32	2018= 100% 2017= 96.7%	Benchmark met. This is a new measurement tool that replaced participation at a community service activity.

Goal 7: The program will provide the medical community with individuals qualified to perform radiographic procedures.

Outcome	Measurement Tool	Benchmark	Timeframe/ Responsible Party	Results
Students will pass the ARRT	ARRT Certification Exam 1 st Time Pass	90% of graduates taking the exam will	Annually	2018= 100% (30/30) 2017= 96.3% (26/27)

certification examination on the 1 st attempt.	Rates	pass on the first attempt each year and 95% of all graduates will pass the exam during the most recent 5-year period.	Program Director	2016= 100% (36/36) 2015= 96.6% (29/30) <u>2014= 96.6% (29/30)</u> 5-yr AVG = 98.04% (150/153)		
Students will successfully complete the program in a three-year period.	Program Completion Rate	75% of entering students will complete the program within three years.	Annually Program Director	2019= 91.66 (33/36) 2018= 76.31% (30/38) 2017= 72.97% (27/34) 2016= 92% (35/38) 2015= 75% (30/40) 2014= 75% (30/40)		Benchmark in the State (one year to one year to target)
Employers will express confidence in the overall quality of graduates' skills.	Employer Surveys	80% of employer responses will indicate that graduates are above average or excellent for Overall Performance.	Biannually in Spring Program Director	2019= 73.91% (17 out of 23 responses) 2017= 78.13% (25 out of 32 responses) 2015= 87.5% (28 of 32 responses) 2013= 71.9% (23 of 32 responses)		Benchmark from previous decisions "80% that is above average"
Graduates will express confidence in the overall quality of their skills.	Graduate Exit Survey	85% of graduate responses will indicate that they are above average or excellent for their Overall Performance	Last week of classes Program Director	Class of 2019= 96.88% (31 out of 32 responses) Class of 2018= 65.52% (19 out of 29 responses) Class of 2017= 82.75% (24 out of 29 responses) Class of 2016= 94.3% (33 of 35 responses) Class of 2015= 96.6% (29 of 30 responses)		Benchmark seem to receive and not perform previous changes graduate they their
	Graduate Follow-up Survey	85% of graduate responses will indicate that they are above average or excellent for their Overall Performance	Annually 6-12 months after graduation Program Director	Class of 2018= 71.43% (5 out of 7 responses) Class of 2017= 100% (8 out of 8 responses) Class of 2016= 100% (9 of 9 responses) Class of 2015 = 100% (10 of 10 responses)		Benchmark to see they miss a percentage and the overall completion benchmark response average Overall

Of those pursuing employment, students will be gainfully employed within 12 months post-graduation.	Graduate Follow-up Survey and "Word of Mouth"	75% of graduate responses over the most recent 5-year period will indicate they found employment.	Annually 6-12 months after graduation Program Director	2018= 100% (29/29) 2017= 96.3% (26/27) 2016 = 97% (34/35) 2015 = 93% (25/27) 2014 = 96% (24/25) 5-Year AVG = 96.5% (138/143)	Benc cont 100% grad
---	---	---	---	---	------------------------------

Please describe any programmatic changes you have made or are planning to make based on the data you have collected (action steps).

The Action/Analysis Section of the Plan described in the above section details programmatic changes based on the data when appropriate. Some of the changes include modifying the curriculum and some of the assignments to further support student learning outcomes, such as creating additional learning modules, improving grading rubrics and assignment instructions, as well as repeating assignments later in the program to assess growth from first to second year.

Please report on the progress of your **action steps** reported in 2017-2018. See <http://www.iun.edu/campus-assessment/assessment-results/index.htm> for your previous unit reports.

Action steps reported in 2017-2018 were implemented and improvements have been noted during the first implementation. Monitoring of the implemented changes will continue as assessment is an ongoing process

****Note:** Please use this template to provide the responses to the prompts above.**