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| jscc logo | **Assessment Record** |

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| **Program:** | **Radiologic Technology** | | | **Assessment period:** | | **2016-2017** | | |
| |  | | --- | | **Program or Department Mission:** |   The mission of the Radiologic Technology Program at Jefferson State Community College is to prepare graduates for entry-level employment as a radiologic technologist in the healthcare community.  This program mission is consistent with the colleges Statement of Philosophy and Purpose in the Jefferson State Community College Catalog and Student Handbook. | | | | | | | |
| **Instructional Program Outcomes & Assessment Plan**  **The Program’s Outcomes are assessed by the following:**   1. The Certification Examination pass rate will be 80% or higher for first-time examinees. 2. 80% of the students admitted into the program will graduate according to program guide lines. 3. Graduates seeking employment will be employed within twelve months of graduation. 4. Students indicate an overall satisfaction with the program. 5. Employers will indicate satisfaction with educational preparation. | | | | | | | |
| **Intended Outcomes** | | **Means of Assessment** | **Criteria for Success** | | **Summary & Analysis of Assessment Evidence** | | **Use of Results** |
| 1. The Certification Examination pass rate will be 80% or higher for first-time examinees. | | Certification Exam Scores | 80% of graduates will pass the ARRT certification exam of their first testing attempt.  The Joint Review Committee on Education in Radiologic Technology (JRCET) standard for pass rates is 75% for first attempt. The program annually exceeds this benchmark so program standards have increased. | | 95% of students passed the certification exam on 1st attempt.  18 attempts  19 first time pass | | Benchmark met  Previous measures that were put into place with regards to out of progression students seems to be working. There were 2 out of progression students in this graduating class who completed the readmission process and succeeded in graduation and certification. 1 student did not complete the readmission process. |
| 1. 75% of the students admitted into the program will graduate according to program guide lines. | | Program Completion Rate | 75% of the students  Admitted into the program will graduate according to program guide lines.  Since the criteria for admission is changing, this benchmark will be evaluated for the next evaluation period. | | 19/27 or 70% of students who were admitted into the program completed the program.  27 started program  19 finished | | Benchmark not met  There has been a steady decline in program completion rates over the past three years. Program faculty have examined the trend in program completion and the only trend noted is the drop rate for personal reasons seems to be greater in the 1st and 2nd semester.  Information sessions have been established by the enrollment services to assist students in making better choices for program admission.  The benchmark was changed from 80% to 75% in this assessment cycle. 75% is the national standard.  2 students who were out of progression, failed the readmission procedure. |
| 1. Graduates seeking employment will be employed within twelve   months of graduation | | Graduate Satisfaction Survey (Question 2) | 75% of graduates actively seeking employment will be employed within 12 months of graduation.  This is the established benchmark from the JRCERT. | | 100% | | 100% or 19/19 students were gainfully employed in radiologic technology within 2 months of program completion. |
| 1. Students indicate an overall satisfaction with the program. | | Graduate Survey (Question 17) | Average score of 2.5 or higher on a 0-3 possible point scale. | | 2.7 | | Benchmark met  This item will continue to be monitored |
| 1. Employers will indicate satisfaction with educational preparation. | | Employer Survey  (Question R) | Average score of 2.5 or higher on a 0-3 possible point scale. | | 3.0 | | Benchmark met  This item will continue to be monitored |
| **Plan submission date: 8-16-17** | | | | | **Submitted by: Christie W. Bolton** | | |

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| jscc logo | **Assessment Record** |

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| **Program:** | **Radiologic Technology** | **Assessment period:** | **16-17** | |
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| |  | | --- | | **Program or Department Mission:** |   The mission of the Radiologic Technology Program at Jefferson State Community College is to prepare graduates for entry-level employment as a radiologic technologist in the healthcare community.  This program mission is consistent with the colleges Statement of Philosophy and Purpose in the Jefferson State Community College Catalog and Student Handbook. | | | |

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| **Instructional Program Student Learning Outcomes & Assessment Plan**  **Student Learning Outcomes are assessed by the following:**   1. Students will apply positioning skills. 2. Student will select appropriate technical factors 3. Students will practice radiation protection. 4. Students will use effective oral communication skills. 5. Students will practice written communication skills. 6. Students will manipulate technical factors for non-routine examinations. 7. Students will adapt positioning for trauma patients. 8. Students will develop a professional resume 9. Students will exhibit professional behaviors such as punctuality in the clinical setting. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will apply positioning skills. | 1. Laboratory Simulation  Repeat Analysis Form  2. Clinical Competency  Repeat analysis form for Clinical Education V  3. Graduate Survey  Portable radiography section | 1. There will be an increase in the pass rate of lab comps in Procedures II as compared to Procedures I in radiographic positioning.  2. There will be an increase in the pass rate of clinical comps in Clinical Education III as compared to Procedures II due to radiographic positioning  3. Score of 2.5 or higher  Scale (1-3) | 1. 98% Pass rate Procedures I  28 students enrolled  1530/1568 procedures completed  97% Pass Rate Procedures II  30 students enrolled  1247/1290 procedures completed  2. 97% Pass rate Procedures II  22 students enrolled in Clinical Ed III  12 comps each student  264 total comps  5 repeat failed comps  259/264 or 98% pass rate  1 student failed clinic due to cheating  3. score 2.7 | 1. Benchmark not met   Although the benchmark was not met, the success rate was high in both courses. This item will continue to be monitored  3 students were added to Procedures II from previous classes. 1 student failed the random drug screen in Procedures II, 3 students withdrew before mid-term for personal reasons. These students were not counted in the pass rate.  2. Benchmark met  Continued analysis of this item. It is too early in the analysis of this item for statistical data integrity.  3. Benchmark met  Continued analysis of this item. |
| 1. Student will select appropriate technical factors | 1. Laboratory Simulation  Positioning section, technique selection of the Laboratory Competency Form in Procedures II  Average of technique selection score of all comps in Procedures II  2. Clinical Competency  Positioning section, technique selection of the Clinical Competency Form  Average of technique selection score of all comps in Clinical Education for Program | 1. Average score of 80% or higher  2. Average score of 80% or higher  There are a total of 56 mandatory competencies for each enrolled student which has a grading section for the technique selection. | The procedures lab was broken and remodeled in this semester so there was not an accurate measure of technique selection.  2. the average score for the section of the clinical competency form was 98% | Since the procedures lab was being remodeled, continued monitoring of this item will be used.  A new technique chart and measuring tool was implemented in the procedures lab with the installation of a new procedures suite which should more accurately reflect what students are demonstrating in clinic.  2. Benchmark met  This benchmark has been met for several years. The program has evaluated the graduate surveys concerning the Procedures section and technical factors knowledge. There was a 2.8 out of 3.0 rating for procedures and a 2.6 out of a 3.0 for technical factors indicating that students were satisfied with the educational provision regarding this information.  This item will be changed for the next assessment period. |
| 1. Students will practice radiation protection. | 1. Laboratory Simulation  Repeat Analysis form  2. Clinical Competency  Positioning section, radiation protection section, of the Clinical Competency Form  Average of radiation protection section score for all students for all competencies in clinical education for the program. | 1. 90% or higher of enrolled students will meet the established criteria for radiation protection  2. Average score of 2.5% or higher  (0-3 points possible) | 1. Of the lab competency 21/21 or 100 % of students met the established criteria for radiation protection 2. the average score for the radiation protection section of the clinical competency form was 3.0   19 students enrolled | 1. Benchmark met   The established benchmark was met and continued analysis will be maintained to review trends.   1. Benchmark met, The measures in place are demonstrating competency for radiation protection.   All students demonstrated competencies with regard to radiation protection on the Clinical Competency Form. This item is being evaluated for effectiveness. |
| 1. Students will use effective oral communication skills. | 1. Presentation in RAD 136 Radiation Protection  Average of presentation grades for the course  2. Presentation in RAD 212 Radiographic Pathology component  Average of presentation grades | 1. Average score of 85% or higher on presentation.  2. Average Score of 85% or higher on presentation. | 1. Average score 92%  21 students enrolled  2.Average score 91%  19 Students enrolled | 1. Benchmark met  This measurement tool is changed every few years to reflect the current needs of the program  2. Benchmark was met.  This item will continue to be used and evaluated for effectiveness. |
| 5. Students will practice written communication skills. | 1. Writing of a paper in RAD 136, Radiation Protection  Average score of paper grades  2 Average of Essay grades for the Patient Care course | 1. Average Score of 85% or higher on presentation.  2. Average score of 85% or higher | 1. Average score 97%  21 students enrolled  2. Average score  100%  29 students enrolled | 1. Benchmark met  This item analysis was changed this year to better analyze written communication skills  2. The established benchmark was met.  This benchmark was changed in the assessment cycle and will be evaluated for relevancy. |
| 1. Students will manipulate technical factors for non-routine examinations. | 1. Exposure Lab Technique Exercises 2. Clinical Competency form, positioning section | 1. Average score of 80% or higher 2. Average score of 80% or higher | 1. Average score   80%  22 students enrolled   1. 100% of students scored 80% or higher on this section. | 1. Benchmark was met.   There are some changes in the lab component that has reinforced technique manipulation in the clinical setting. Some of the changes include a new technique chart, measuring the patient and critically thinking with regards to patient body habitus.   1. Benchmark met   This item’s relevancy was evaluated by program faculty and felt at this time it was still relevant for assessment on positioning. |
| 1. Students will adapt positioning for trauma patients. | 1. Clinical Competency form   Average score of clinical competency on trauma comps for each student in clinical education for the program.  2. Test on Trauma  Average of Trauma test grades in RAD 122 Radiographic Procedures II | 1. 80% overall score on trauma competency   2. Average score of 80% or higher | 1. Average score   100 %  19 graduates   1. Average score   85%  24 students took the test | 1. Benchmark was met.   This item’s relevancy was evaluated by program faculty and felt at this time it was still relevant for assessment on positioning for trauma.  An additional lab competency was added for x-lat c-spine to reinforce this item.  2. Benchmark met  This item’s relevancy was evaluated by program faculty and felt at this time it was still relevant for assessment on positioning for trauma.. |
| 1. Students will develop a professional resume | Writing a Professional  Resume | 85% or higher on 100% scale | 19/19 or 100% of students wrote a professional resume with 85% or higher | Benchmark met  This item has been used for several years to analysis communication skills in writing. Faculty feel that it is still relevant in the importance of professionalism. |
| 9. Students will exhibit professional behaviors such as punctuality in the clinical setting. | 1. Time Card  2. Clinical Performance Evaluation Form  Section 1 B | 1. 90% of students enrolled in the final semester will have less than 3 tardies per semester  2. Average score of 2.5 or higher on a 0-3 points possible scale | 1. 18/19 or 95% of students had  less than 3 tardies per semester  2. Ave Score = 2.4 out of a 3.0 scale | 1. Benchmark met  The single student who had multiple tardies was counselled each semester and the clinical grade was effected.  2. Benchmark not met  This item will no longer be utilized for this analysis due to the misuse of the form in the clinical setting. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie W. Bolton** | |

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| **Program:** | **Radiologic Technology** | **Assessment period:** | **16-17** |

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| |  | | --- | | **Program or Department Mission:** |   The mission of the Radiologic Technology Program at Jefferson State Community College is to prepare graduates for entry-level employment as a radiologic technologist in the healthcare community.  This program mission is consistent with the colleges Statement of Philosophy and Purpose in the Jefferson State Community College Catalog and Student Handbook. |

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| **Course Student Learning Outcomes & Assessment Plan**  **RAD 111 Introduction to Radiology**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate knowledge of radiation protection practices 2. Students will comprehend ethical issues associated with Radiologic Science 3. Students will comprehend the formation and use of medical terminology associated with Radiologic Science. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate knowledge of radiation protection practices | Radiation Protection Exam | 90% of students will have an average grade of 80% or higher on the Radiation Protection Examination  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 26/27 or 96 % of students scored 80% or higher.  96% | Benchmark met  Continuation of this assessment tool. |
| 1. Students will comprehend ethical issues associated with Radiologic Science. | Students will explain  the importance of the  Patients’ Bill of Rights. | 90% of students will have an average grade of 80% or higher on the Patient’s Bill of Rights assignment.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 23/27 or 85% of students scored 80% or higher. | Benchmark not met  3 of 4 students who did not make 80% or higher did not complete the assignment  Continued analysis of this item will be assessed. |
| 1. Students will comprehend the formation and use of medical terminology associated with Radiologic Science. | Medical Terminology assessment exams. | 90% of students will have an average grade of 80% or higher on the Medical Terminology assessments.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 26/27 or 96% of students scored 80% or higher.  There are 13 medical terminology assessments. | Benchmark met  The one student who did not score 80% or higher on the medical terminology assessments was because she did not complete 3 assessment exams. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie Bolton** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 112 Radiographic Procedures I**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate knowledge of basic positioning, planes, movement and direction. 2. Demonstrate knowledge of techniques to manipulate radiographic equipment. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate knowledge of basic positioning, planes, movement and direction | Written exam on general anatomy, terminology and positioning principles. | 90% of students will achieve 75% or higher on exam.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 21/31 or 68% of student passed the exam with 75% or higher | Benchmark not met.  3 of the students who did not meet the benchmark withdrew.  This item will continue to be monitored because this information is essential for the job as a radiologic technologist. |
| 1. Demonstrate knowledge of techniques to manipulate radiographic equipment. | Competency demonstrations in lab. | 90% of students will achieve 80% or higher on the lab competency grade.  The high standards were set because the set pass rate for clinical evaluation is 80% or higher for passing. | 28/28 or 100% of students achieved 80% or higher on competency grade. | Benchmark met.  This item seems to be working. Continued analysis will be followed. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Annette Ferguson** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 113 Patient Care**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate body mechanics for patient safety, comfort, and transfer. 2. Students will demonstrate competency is obtaining vital signs. 3. Students will able to administer selected pharmacological agents related to radiologic procedures demonstrated through competency in venipuncture techniques. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate body mechanics for patient safety, comfort, and transfer. | Safe Transfer Techniques check –off demonstration form. | Students will be competent in demonstrating safe transfer techniques. | 100% of enrolled students performed competency.  30 enrolled | Benchmark met.  This item is important to monitor due to the safety of the student as well as any patient in their care. Continued monitoring of this item. |
| 2. Students will demonstrate competency is obtaining vital signs. | Vital Signs check-off demonstration form. | Students will be competent in obtaining vital signs. | 30/30 or 100% of students performed competency. | Benchmark met.  This item will continue to be monitored. |
| 3. Students will able to administer selected pharmacological agents related to radiologic procedures demonstrated through competency in venipuncture techniques. | 1. Venipuncture competency form.  2. Also a written venipuncture exam. | 1. Students will have a 85% or higher on venipuncture competency  2. Students will have a 85% or higher on exam.  The high standards were set because of the complexity of patient care standards in the clinical education setting. | 1. 27/27 or 100% of students performed competency with 85% accuracy.  2. 25/27 or 93% of students completed the written exam with 85% or higher accuracy. | 1. Benchmark met. 2. Benchmark met.   The 2 students who did not meet the benchmark did not complete the program.  Continue to monitor this item. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Annette Ferguson** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 114 Clinical Education I**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate competency in Cardiopulmonary resuscitation (CPR) at the professional provider level. 2. Students will demonstrate knowledge of radiation protection practices | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate competency in Cardiopulmonary resuscitation (CPR) at the professional provider level. | CPR certification documentation | 100% of students will be CPR certified at the professional provider level  The high benchmark is a standard set by the clinical facilities affiliated with the program. | 27/27 or 100% of students provided CPR certification documentation. | Benchmark met  This is an ongoing assessment due to the requirements of the clinical environment. |
| 1. Students will demonstrate knowledge of radiation protection practices | Radiation Protection Exam | 90% of students will have an average grade of 80% or higher on the Radiation Protection Examination  The high standards were set because of the complex clinical environment which the students are placed. | 27/27 or 100% of students obtained 80% or higher. | Benchmark met  This is an ongoing assessment. |
| 1. Students will demonstrate knowledge of the Health Insurance Portability and Accountability Act | HIPAA exam | 90% of students will achieve 80% or higher on the HIPAA exam.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate | 31/31 or 100% of enrolled students obtained an 80% or higher on the HIPAA exam. | Benchmark met.  Continued monitoring of this assessment item. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie W. Bolton** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 122 Radiographic Procedures II**  **Student Learning Outcomes may be measured as follows:**   1. Students will define terms related to the principles of radiographic procedures of the spine. 2. Students will explain routine and special views for specific radiographic procedures. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will define terms related to the principles of radiographic procedures of the spine. | Written exam on the spine. | 90% of students will achieve 75% or higher.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/28 or 68 % of students achieved 75% or higher. | Benchmark not met  This item’s assessment continues to fluctuate. It will be evaluated on an additional assessment cycle to evaluate effectiveness. |
| 1. Students will explain routine and special views for specific radiographic procedures. | Competency demonstrations in lab. | 90% of students will achieve 80% or higher on the lab competency grade.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 25/26 or 196% of students achieved 80% or higher on competency grade. | Benchmark met.  Continued monitoring of this assessment item.  The one student who did not achieve benchmark did not complete the program. |
| **Plan submission date: 8/31/17** | | | **Submitted by: Annette Ferguson** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 124 Clinical Education II**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate knowledge of radiation protection practices. 2. In a clinical environment, students will perform radiographic activities. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate knowledge of radiation protection practices | Radiation Protection critical skill | 90% of students will have an average grade of 80% or higher on the Radiation Protection section of the competency evaluation form.  The high standards were set because of the issues of radiation protection regarding clinical patients. | 25/25 or 100% of students averaged 80% or higher on this section. | Benchmark met  This is an ongoing assessment for clinical education. |
| 1. In a clinical environment, students will perform radiographic activities | Successful completion of competency exams. | 100% of students will successfully complete the designated number of competency exams.  The ARRT and JRCERT both require specific competencies for all RAD program graduates to complete successfully. | 20/20 or 100% of students, who completed the course, completed the designated number of competency exams. | Benchmark met  This is an ongoing assessment. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie W. Bolton** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 125 Imaging Equipment**  **Student Learning Outcomes may be measured as follows:**   1. The student will pass Unit I exams regarding concepts related to the atomic structure. 2. The student will pass Unit II exams regarding the X-ray Imaging System. 3. The student will pass Unit III exams regarding Conventional and Computed Tomography. 4. The student will pass Unit V exams regarding Digital and Fluoroscopic Imaging. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. The student will pass Unit I exams regarding concepts related to the atomic structure. | Unit I exams. | 90% of students will achieve 75% or higher on Unit I exams.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/25 or 76% of students passed the Unit I exam. | Benchmark not met  3 out of 6 students who failed the exam did not complete the program  This item will be continually monitored.  The instructor will evaluate the content of this section and determine if the content needs to be broken into more than one exam. |
| 1. The student will pass Unit II exams regarding the X-ray Imaging System. | Unit II exams. | 90% of students will achieve 75% or higher on Unit II exams.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 24/25 or 96% of students passed the Unit II exam | Benchmark met  This item will be continually monitored. |
| 1. The student will pass Unit III exams regarding Conventional and Computed Tomography. | Unit III exams. | 90 % of students will achieve 75% or higher on Unit IV exams.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 25/25 or 100% of students passed the Unit III exam | Benchmark met  Continued monitoring of this assessment. |
| 1. The student will pass Unit IV exams regarding Digital and Fluoroscopic Imaging. | Unit IV exams | 90% of students will achieve 75% or higher on Unit V exams.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 21/25 or 88% of students passed the Unit IV exam | Benchmark met  2 of 4 students who did not meet the benchmark did not finish the program.  Continued monitoring of this assessment. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie Bolton** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 134 Clinical Education III**  **Student Learning Outcomes may be measured as follows:**  In a clinical environment, students will perform radiographic activities | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| In a clinical environment, students will perform radiographic activities | Successful completion of competency exams. | 100% of students will successfully complete the designated number of competency exams.  The ARRT and JRCERT both require specific competencies for all RAD program graduates to complete successfully. | 22/22 or 100% of students who completed the course, completed the designated number of competency exams. | Benchmark met  This is an ongoing assessment. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie Bolton** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 135 Exposure Principles**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate knowledge of density, contrast, detail and distortion on radiographic images. 2. Students will demonstrate knowledge of exposure principles and quality assurance in the laboratory setting. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate knowledge of density, contrast, detail and distortion on radiographic images. | Written exam on quality factors. | 90% of students will achieve 75% or higher.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/22 or 86% of students achieved 75% or higher. | Benchmark not met.  Of those who did not meet the benchmark 2 did not complete the program.  Continuing monitoring this item for effectiveness. |
| 1. Students will demonstrate knowledge of exposure principles and quality assurance in the laboratory setting. | Lab demonstration folder. | 90% of students will achieve 75% or higher on lab folder.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 22/22 or 100% of students achieved 75% or higher. | Benchmark met.  This is an ongoing assessment |
| **Plan submission date: 8/16/17** | | | **Submitted by: Annette Ferguson** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 136 Radiation Protection and Biology**  **Student Learning Outcomes may be measured as follows:**   1. Students will explain the fundamental principles of molecular and cellular radiobiology. 2. Students will explain basic concepts related to radiation protection. 3. Students will explain the importance of radiation protection procedures for patients and personnel. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will explain the fundamental principles of molecular and cellular radiobiology. | Exam on cellular radiobiology | 90% of students will achieve 75% or higher molecular and cellular radiobiology exams.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 21/21 or 100% students achieved 75% or higher | Benchmark met  Continued analysis of this item will be assessed. |
| 1. Students will explain basic concepts related to radiation protection. | Exam on radiation monitoring, radiation quantities and units. | 90% of students will achieve 75% or higher on radiation monitoring and radiation quantities and units exam.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/21 or 90% students achieved 75% or higher | Benchmark met  Continued analysis of this item will be assessed. |
| 1. Students will explain the importance of radiation protection procedures for patients and personnel. | Scientific Research paper on radiation protection for patients or personnel. | 90% of students will achieve a 75% or higher grade on the scientific research paper.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 21/21 or 100% of students achieved 75% or higher on the research paper. | Benchmark met  This benchmark is changed periodically during the program assessment. There should be one additional assessment cycle before the assessment changes. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie W. Bolton** | |

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| **Course Student Learning Outcomes & Assessment Plan**  **RAD 212 Image Evaluation and Pathology**  **Student Learning Outcomes may be measured as follows:**   1. Students will explain concepts related to guidelines of radiographic image evaluation. 2. Students will demonstrate evaluation criteria, anatomy demonstration, and image quality with emphasis placed on body system approach to pathology in the laboratory setting. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will explain concepts related to guidelines of radiographic image evaluation. | Written exam on guidelines of radiographic image evaluation. | 90% of students will achieve 75% or higher.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 17/19 or 90% of students scored 75% or higher on exam. | Benchmark met.  The instructor introduced lab demonstrations earlier in the semester to assist with meeting this benchmark. |
| 1. Students will demonstrate evaluation criteria, anatomy demonstration, and image quality with emphasis placed on body system approach to pathology in the laboratory setting. | Critiques of individual images. | 90% of students will achieve 75% or higher.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/19 or 100% of students scored 75% or higher on exam. | Benchmark met.  This item has been evaluated for two assessments cycles and seems to be assisting students with the subject material. Continued monitoring of this item. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Annette Ferguson** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 214 Clinical Education IV**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate knowledge of radiation protection practices. 2. In a clinical environment, students will perform radiographic activities. 3. Students will explain the basic principles of image formation in computed tomography. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate knowledge of radiation protection practices | Radiation Protection Exam | 90% of students will have an average grade of 80% or higher on the Radiation Protection section of the competency evaluation form.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/19 or 100% of students had an overall average grade of 80% or higher in this section on completed comps. No student had a repeat competency for deficiency for patient shielding. | Benchmark met  No additional action is needed at this time.  This is an ongoing assessment. |
| 1. In a clinical environment, students will perform radiographic activities | Successful completion of competency exams. | 100% of students will successfully complete the designated number of competency exams.  The ARRT and JRCERT both require specific competencies for all RAD program graduates to complete successfully. | 19/19 or 100% of students completed the designated number of competency exams. | Benchmark met  No additional action is needed at this time.  This is an ongoing assessment. |
| 1. Students will explain the basic principles of image formation in computed tomography. | Cross- sectional anatomy exams. | 90% of students will have an average grade of 80% or higher on the Cross-sectional anatomy exams.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/19 or 100% of students had an overall average grade of 80% or higher on cross-sectional anatomy exams. | Benchmark met  This benchmark has been met for several assessment cycles however, the ARRT requires a CT with cross-sectional component within the program so this will be an ongoing assessment. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie Bolton** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 224 Clinical Education V**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate knowledge of radiation protection practices. 2. In a clinical environment, students will perform radiographic activities. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate knowledge of radiation protection practices | Radiation Protection Critical Skills | 90% of students will have an average grade of 80% or higher on the Radiation Protection section of the competency evaluation form.  The high standards were set because of the complexity of the ARRT certification exam. The program will evaluate trends and re-evaluate the standards set. | 19/19 or 100% of students had an overall average grade of 80% or higher in this section. No student had a repeat competency for deficiency of patient shielding. | Benchmark met  No additional action is needed at this time.  Radiation protection is one of the topics that the ARRT and the JRCERT require an evaluation for. Because of this, this is an ongoing assessment. |
| 1. In a clinical environment, students will perform radiographic activities | Successful completion of competency exams. | 100% of students will successfully complete the designated number of competency exams.  The ARRT and JRCERT both require specific competencies for all RAD program graduates to complete successfully. | 19/19 or 100% of students completed the designated number of competency exams. | Benchmark met  No additional action is needed at this time.  This is an ongoing assessment. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie Bolton** | |
| **Course Student Learning Outcomes & Assessment Plan**  **RAD 227 Review Seminar**  **Student Learning Outcomes may be measured as follows:**   1. Students will demonstrate knowledge of radiation protection practices. 2. Students will explain concepts related to image production and evaluation. 3. Students will explain concepts related to specific radiographic procedures. 4. Students will explain concepts related to patient care and education. 5. Students will prepare for entry into the profession. | | | | |
| **Intended Outcomes** | **Means of Assessment** | **Criteria for Success** | **Summary & Analysis of Assessment Evidence** | **Use of Results** |
| 1. Students will demonstrate knowledge of radiation protection practices | Section Exam on  Radiation Protection Exam | 90% of students will have an average grade of 80% or higher on the Radiation Protection Examination  This course is taught in the last semester of the program where students are prepared to take their certification exam. The high standards were set because of the complexity of the ARRT certification exam. Due to the low scores, the program will evaluate trends and re-evaluate the standards set. | 11/19 or 58% of students scored 80% or higher | Benchmark not met  Evaluation of this item is important and the instructor will do more in the review section to reinforce the material.  A comparison to the ARRT exam revealed that 14/19 or 74% of graduates passed the radiation protection section of the exam.  This item will continue to be monitored. |
| 1. Students will explain concepts related to image production and evaluation | Section Exam on Image Production and Evaluation | 90% of students will have an average grade of 80% or higher on the first attempt of the Image Production and Evaluation Section exam.  This course is taught in the last semester of the program where students are prepared to take their certification exam. The high standards were set because of the complexity of the ARRT certification exam. Due to the low scores, the program will evaluate trends and re-evaluate the standards set. | 13/19 or 68% of students scored 80% or higher | Benchmark not met  The image evaluation course was modified. The instructor felt the text was confusing so it will be changed for the next cohort.  This item will continue to be monitored. |
| 1. Students will explain concepts related to specific radiographic procedures. | Section Exam on Radiographic Procedures. | 90% of students will have an average grade of 80% or higher on the first attempt of the Radiographic Procedures Section exam.  This course is taught in the last semester of the program where students are prepared to take their certification exam. The high standards were set because of the complexity of the ARRT certification exam. Due to the low scores, the program will evaluate trends and re-evaluate the standards set. | 19/19 or 100% of students scored 80% or higher | Benchmark met  This item will continue to be monitored. |
| 1. Students will explain concepts related to patient care and education | Section Exam on Patient Care and Education | 90% of students will have an average grade of 80% or higher on the first attempt on the Patient Care and Education Section Exam.  This course is taught in the last semester of the program where students are prepared to take their certification exam. The high standards were set because of the complexity of the ARRT certification exam. Due to the low scores, the program will evaluate trends and re-evaluate the standards set. | 14/19 or 74% of students scored 80% or higher | Benchmark not met  From the graduates in this cohort 18/19 passed the certification exam on first attempt.  ARRT certification exam results reveal that 17/19 or 90% of graduates passed the radiation protection section of the certification exam.  This item will continue to be monitored. |
| 1. Students will prepare for entry into the profession | Writing a Professional Resume | 90% of students will have an average grade of 80% or higher on the Professional Resume  This course is taught in the last semester of the program where students are prepared to take their certification exam and prepare for employment. Completing a professional resume is essential in obtaining employment. | 19/19 or 100% of students scored 80% or higher on the Professional Resume. | Benchmark met  This is an ongoing assessment.  Modifications in employment readiness vary according to the employment needs of each graduate. |
| **Plan submission date: 8/16/17** | | | **Submitted by: Christie W. Bolton** | |