**Sinclair Community College**

**Continuous Improvement Annual Update 2012-13**

**Please submit to your dean and the Provost’s Office no later than Oct. 1, 2012**

**Department:** 0678 – Radiologic Technology

Year of Last Program Review: FY 2008-2009

Year of Next Program Review: FY 2015-2016

**Section I: Department Trend Data, Interpretation, and Analysis**

**Degree and Certificate Completion Trend Data – OVERALL SUMMARY**

Please provide an interpretation and analysis of the Degree and Certificate Completion Trend Data (Raw Data is located in Appendix A*): i.e. What trends do you see in the above data? Are there internal or external factors that account for these trends? What are the implications for the department? What actions have the department taken that have influenced these trends? What strategies will the department implement as a result of this data?*

The RAT department has worked very hard on program completion and course success over the past 2-3 years have improved from 35% completion rate for RAT.AAS students in 2009 to 62% in 2010 and then 71% in 2011. Again, these numbers are calculated for the RAT.AAS cohort students only. Besides the detailed changes the RAT faculty members implemented over the past few years to increase program completion, no other specific internal or external factors have been identified as being connected to this data trend. Improvement of program completion rates and student comprehension of concepts continues to be one of the highest priorities for the RAT Department faculty.

**Course Success Trend Data – OVERALL SUMMARY**

Please provide an interpretation and analysis of the Course Success Trend Data (Raw Data is located in Appendix A). Looking at the success rate data provided in the Appendix for each course, please discuss trends for high enrollment courses, courses used extensively by other departments, and courses where there have been substantial changes in success.

The data provided above shows a fairly high success rate for RAT courses. Due to a PHY prefix for one of our major courses, that data is not reflected in the above chart. That course (PHY 106) is a RAT major course and was identified in the RAT 2011-12 annual update as the first of a three-part radiologic sciences course sequence. A detailed analysis of that course, along with several others, was provided in last year's update. The department has taken steps in the semester curriculum that will hopefully improve the success rate in that particular course. The department faculty hopes to see an increased success in all RAT courses since so many changes were made to the semester course sequence. Revisions made to the program admissions requirements and course pre-requisites are also expected to help increase both the RAT course success rates as well as overall RAT.AAS program completion rates.

Please provide any additional data and analysis that illustrates what is going on in the department (examples might include accreditation data, program data, benchmark data from national exams, course sequence completion, retention, demographic data, data on placement of graduates, graduate survey data, etc.)

Over the last four (4) years RAT.AAS graduates have a 100% pass rate on the first attempt on the American Registry of Radiologic Technologists’ (ARRT) national certification exam. Students graduating from the Sinclair RAT.AAS program continue to show mean average scores higher than the national average scores.

The collaboration between Hocking College and Sinclair Community College to offer radiologic technology has officially ended in December 2011. The last seven (7) Hocking-based graduates all passed the ARRT certification examination on the first attempt and most are pursuing employment within the field at this time. All paperwork, supplies and equipment were transferred back to the Dayton Campus by January 2012.

After much reflection and evaluation on the dual-track system of admissions, the department went back to one admission point per year for the RAT.AAS program beginning with the 11/FA admitted cohort. The overall number of students admitted will be close to the same as with two (2) cohorts, however, the department still has to watch enrollment based on job placement rates of graduates as well as the availability of clinical supervision and variety and volume of radiographic procedures.

The first single cohort was accepted and began the technical curriculum in 11/FA. There were 42 students accepted that began in 11/FA and unfortunately at this time there are only 23 of them left in the cohort. In the 2011-12 RAT annual update this exact fear was expressed. The RAT faculty attributes the high attrition in this cohort to the fact that the majority of the students waited 3-4 years to begin the technical curriculum, and many of them hadn't taken a college-level course in over two (2) years. While some students left the program cohort due to not meeting the minimum grade requirements in program courses, there were also a lot of students who left the cohort due to personal and/or financial reasons in the first two (2) quarters of the technical curriculum. At this time that cohort has a 55% retention rate so department faculty members are doing everything possible to retain all remaining students through to graduation in May, 2013.

The first cohort admitted under the new admission requirements began the program in 12/FA and are doing extremely well so far in fall semester. More data and analysis will be presented in next year's annual update regarding this first cohort admitted under the new admissions requirements.

**Section II: Progress Since the Most Recent Review**

Below are the goals from Section IV part E of your last Program Review Self-Study. Describe progress or changes made toward meeting each goal over the last year.

|  |  |  |
| --- | --- | --- |
| **GOALS** | **Status** | **Progress or Rationale for No Longer Applicable** |
| The program plans a complete revision of the program mission and goals in the near future. Included in the revision process will be a review and possible revision of course content, student assignments/assessments, etc. Recent revisions to curriculum and admissions requirements will continue to be monitored for effectiveness. | In progress XCompleted [ ] No longer applicable [ ]  | The department is still in the process of revising the program assessment plan with measures taken from semester courses. With the accreditation interim report due in May, 2013 the department will likely complete the assessment plan revisions prior to the end of 12/FA so everything is ready to send in with the JRCERT Interim Accreditation report in spring, 2013.  |

Below are the Recommendations for Action made by the review team. Describe the progress or changes made toward meeting each recommendation over the last year.

|  |  |  |
| --- | --- | --- |
| **RECOMMENDATIONS** | **Status** | **Progress or Rationale for No Longer Applicable** |
| The department is encouraged to consider implementation of the Life and Health Sciences Division’s Accelerated Admission for Academic Achievement (AAAA) policy which would allow them to admit a percentage of students in a more selective manner while maintaining access for others on the waiting list. This has the potential of improving retention.  | In progress [ ] Completed [ ] No longer applicable X | Admission criteria and all processes regarding program acceptance have been completely revised. RAT faculty members chose not to use the LHS AAAA policy as it is written, but the minimum cumulative grade point average for admission has been increased from 2.25 to 2.5, a higher level pre-requisite math course has been added as a required pre-requisite, and newly developed introductory course on radiologic technology has also been added as a required pre-requisite course. In addition to the above mentioned changes, Anatomy and Physiology I (currently BIO 121) has also been added as a required pre-requisite course for the program’s semester curriculum. We feel strongly that the changes we've implemented will improve retention and overall program completion. More data and analysis will be provided in next year's annual update since those students just started in 12/FA. |
| Analysis of retention data should include measuring the effects of the change in policy to limit the number of attempts of BIO courses. | In progress [ ] Completed [ ] No longer applicable X | Due to lack of data collection and the length of time lapsed from the effective date of the program policy, the recommendation from the department review committee to “perform an analysis of retention data including measuring the effects of the policy changes to limit the number of attempts in BIO courses” has not been completed. The department has just recently begun to accept students using the newly revised procedures and a more detailed analysis of the new procedures will be reported next year. The department faculty members still support the minimum grade of “C” or better for all program courses and pre-requisites, as well as a three attempt maximum for all ALH, BIO, HIM and MAT courses.  |
| The department is encouraged to develop a strategy for communicating with students on the waiting list regarding the current and projected need for radiologic technologists in the community. Communication of opportunities to complete additional course work that will transfer to a baccalaureate program while awaiting admission and other options could also be shared with these students in a systematic manner. | In progress [ ] Completed XNo longer applicable [ ]  | Communication with queued RAT.S.AAS students has greatly improved over the past two (2) years. The department chair and administrative assistant have an open line of communication with academic advisors and speak with them often regarding program admission issues, required pre-requisites, transfer courses, etc. In addition to improved communication with academic advising, The Introduction to Radiologic Technology course (RAT 1101) has greatly improved the communication with incoming students. It gives the students a direct link to the program via the full-time RAT faculty members that teach the course. This course begins with a review of the newly revised admission procedures, revised pre-requisites and gpa requirements, and also a review of some program policies and procedures. After successful completion of this course students will have a much better understanding of the field of radiologic technology, which department faculty members hope will correlate to an increase in student retention once accepted. The department feels that if students are better prepared for the rigor of the profession and the program itself they will come in better prepared and will stay with the program through completion, or they will select another major prior to being accepted and the program completion rate will not be reduced due to students being accepted without realistic expectations of the program.Even in only four (4) weeks of fall semester, 2012 department faculty have seen a major improvement in the preparation level of the first- year students. They arrive in class very prepared and organized, and due to their successful completion of the introductory radiologic technology course as well as completing a college level algebra course and having a higher gpa they came into the program with a knowledge base of the profession and concepts that no other students have entered with in previous years. Again, the faculty are very impressed with these first-year students so far and we look forward to seeing them progress through the program curriculum.  |

**Section III: Assessment of General Education & Degree Program Outcomes**

The Program Outcomes for the degrees are listed below. **All program outcomes must be assessed at least once during the 5 year Program Review cycle, and assessment of program outcomes must occur each year**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **General Education Outcomes** | To which degree(s) is this program outcome related? | Year assessed or to be assessed. | Assessment MethodsUsed | What were the assessment results? (Please provide brief summary data) |
| Oral Communication | All programs | **2011-2012** | Group presentations and clinical communication | Program assessment plan benchmarks were met. Assignments and measures are currently under review for potential revision in semester courses. |
| Written Communication | All programs | **2011-2012** | Various writing assignments in first and second-year | Program assessment plan benchmarks were met. Assignments and measures are currently under review for potential revision in semester courses.  |
| Critical Thinking/Problem Solving | All programs | **2012-2013** |  |  |
| Values/Citizenship/Community | All programs | **2013-2014** |  |  |
| Computer Literacy | All programs | **2014-2015** |  |  |
| Information Literacy | All programs | **2015-2016** |  |  |
|  |  |  |  |  |
| **Program Outcomes** | To which course(s) is this program outcome related? | Year assessed or to be assessed. | Assessment MethodsUsed | What were the assessment results? (Please provide brief summary data) |
| Demonstrate competence in the delivery of clinical practice with entry-level skills. | RAT 1111, 1212, 2413, 2514, 1121, 1222, 2423,BIO 1121, BIO 1222 | Assessed annually. (Note, BIO courses are N/A here) | Lab and clinical competencies, case studies and scenarios, clinical instructor evaluations (specific questions) | Program assessment plan benchmarks were met. Assignments and measures are currently under review for potential revision in semester courses. |
| Demonstrate critical thinking and problem-solving skills. | RAT 1111, 1212, 2413, 2514, 1121, 1222, 2423, 1241, 2442, 2543, 2526, 2415, MAT 1470  | Assessed annually. | Radiographic image analysis assignments and exams, exposure lab assignments, trauma case study assignments, clinical instructor evaluations | Program assessment plan benchmarks were met with the exception of the most recent image analysis exam scores, which were slightly under the program benchmark. Assignments and measures are currently under review for potential revision in semester courses.  |
| Demonstrate professional and ethical attitudes and behaviors. | RAT 1101, 1131, 2526, 1111, 1212, 2514, 2415, ALH 1101, PSY 1100 or SOC 1101, OTM Arts & Humanities Elective | Assessed annually. | Ethics case studies and presentations, clinical instructor evaluations, professionalism and professional development activity | Program assessment plan benchmarks were met. Assignments and measures are currently under review for potential revision in semester courses. |
| Demonstrate effective communication. | RAT 1131, 1111, 1212, 2413, 2514, 2526, ENG 1101, HIM 1101, COM 2206/2211 | Assessed annually. | Group and individual presentations, lab and clinical competency evaluations, and various writing assignments throughout the program curriculum  | Program assessment plan benchmarks were met. Assignments and measures are currently under review for potential revision in semester courses. |

**General Education Outcomes**

1. Are changes planned as a result of the assessment of general education outcomes? If so, what are those changes?

Nothing specific is planned at this time, however, new measures may be implemented as a part of the assessment plan revisions currently underway at this time.

1. How will you determine whether those changes had an impact?

Through the analysis of results and the typical programmatic assessment cycle as required by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

**Program Outcomes**

1. Are changes planned as a result of the assessment of program outcomes? If so, what are those changes?

Yes, the entire plan is under revision at this time in order to meet new accreditation requirements and to apply measures consistent with the semester curriculum courses.

1. How will you determine whether those changes had an impact?

Through the analysis of results and the typical programmatic assessment cycle as required by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

**Improvement Efforts**

1. What were the results of changes that were planned in the last Annual Update? Are further changes needed based on these results?

Changes planned from last year's annual update were: "Full implementation of the semester conversion is the overall goal for the RAT department in 2011-12. Evaluation of the recently implemented admissions procedures will take place as well and changes will be made as necessary. Improvement of program completion rates and course success rates is also in the plans for the RAT department in 2011-12.

Finally, the department faculty members plan a comprehensive revision of all policies and procedures relating to the clinical education in the RAT.AAS program, and a comprehensive revision will also take place to the RAT.AAS program assessment plan to put it in alignment with the newly revised accreditation standards as well as the newly revised national curriculum."

The department also plans to evaluate our semester curriculum courses on an on-going basis to see if any revisions are necessary after the curriculum is run the first time.

1. Are there any other improvement efforts that have not been discussed in this Annual Update submission?

Other than the items identified previously in this annual update no additional efforts are planned at this time, however, as analysis takes place regarding the semester curriculum if changes are needed they will be implemented as soon as possible.

**APPENDIX – PROGRAM COMPLETION AND SUCCESS RATE DATA**

**Degree and Certificate Completion**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Department | Department Name | Program | FY 07-08 | FY 08-09 | FY 09-10 | FY 10-11 |
| 0678 | Radiologic Technology | RAT.AAS | 54 | 50 | 49 | 35 |

**Course Success Rates**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Department | Department Name | Course | FY 07-08 | FY 08-09 | FY 09-10 | FY 10-11 | FY 11-12 (excludes Spring) |
| 678 | Radiologic Technology | RAT-104 | 73.3% | . | . | . | . |
| 678 | Radiologic Technology | RAT-105 | . | . | . | . | . |
| 678 | Radiologic Technology | RAT-111 | 90.8% | 93.8% | 95.8% | 85.7% | 84.4% |
| 678 | Radiologic Technology | RAT-112 | 96.6% | 96.6% | 98.2% | 92.3% | 100.0% |
| 678 | Radiologic Technology | RAT-121 | 84.0% | 91.6% | 91.4% | 89.8% | 88.1% |
| 678 | Radiologic Technology | RAT-122 | 79.0% | 88.3% | 85.5% | 80.4% | 80.0% |
| 678 | Radiologic Technology | RAT-123 | 89.7% | 95.2% | 88.1% | 94.7% | 100.0% |
| 678 | Radiologic Technology | RAT-127 | . | . | . | . | . |
| 678 | Radiologic Technology | RAT-128 | . | . | . | . | . |
| 678 | Radiologic Technology | RAT-129 | . | . | . | . | . |
| 678 | Radiologic Technology | RAT-130 | . | 88.1% | 89.7% | 84.3% | 81.0% |
| 678 | Radiologic Technology | RAT-131 | 80.2% | 89.4% | 87.0% | 82.7% | 86.0% |
| 678 | Radiologic Technology | RAT-132 | 91.8% | 97.3% | 98.3% | 90.2% | 84.4% |
| 678 | Radiologic Technology | RAT-137 | . | . | . | . | . |
| 678 | Radiologic Technology | RAT-199 | 95.0% | 97.6% | 100.0% | 100.0% | 100.0% |
| 678 | Radiologic Technology | RAT-212 | 100.0% | 97.7% | 100.0% | 96.2% | 100.0% |
| 678 | Radiologic Technology | RAT-213 | 98.3% | 97.5% | 98.2% | 100.0% | 100.0% |
| 678 | Radiologic Technology | RAT-214 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| 678 | Radiologic Technology | RAT-215 | 91.9% | 97.9% | 100.0% | 100.0% | 92.0% |
| 678 | Radiologic Technology | RAT-218 | 100.0% | 97.7% | 100.0% | 96.2% | 100.0% |
| 678 | Radiologic Technology | RAT-219 | 88.1% | 83.7% | 93.2% | 94.5% | 91.9% |
| 678 | Radiologic Technology | RAT-222 | 100.0% | 97.7% | 100.0% | 88.9% | 94.7% |
| 678 | Radiologic Technology | RAT-226 | 100.0% | 100.0% | 98.0% | 100.0% | 100.0% |
| 678 | Radiologic Technology | RAT-227 | . | . | . | . | . |
| 678 | Radiologic Technology | RAT-229 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| 678 | Radiologic Technology | RAT-231 | 93.4% | 88.6% | 93.2% | 89.1% | 100.0% |
| 678 | Radiologic Technology | RAT-232 | 100.0% | 100.0% | 98.0% | 100.0% | 100.0% |
| 678 | Radiologic Technology | RAT-240 | 57.1% | 93.3% | 89.5% | 91.3% | 100.0% |
| 678 | Radiologic Technology | RAT-241 | 100.0% | 84.6% | 95.7% | 90.5% | 100.0% |
| 678 | Radiologic Technology | RAT-243 | 76.2% | 76.0% | 77.3% | 69.2% | 75.0% |
| 678 | Radiologic Technology | RAT-244 | 71.4% | 100.0% | 92.9% | 100.0% | 100.0% |
| 678 | Radiologic Technology | RAT-245 | 94.1% | 95.8% | 96.9% | 85.0% | 100.0% |
| 678 | Radiologic Technology | RAT-261 | 87.5% | 100.0% | 100.0% | . | 100.0% |
| 678 | Radiologic Technology | RAT-265 | 80.0% | 92.3% | . | . | . |
| 678 | Radiologic Technology | RAT-297 | . | . | . | . | 84.3% |
|  |  |  |  |  |  |  |  |