

**DALTON STATE COLLEGE  
COMPREHENSIVE PROGRAM REVIEW**

**Program/Subject Area: Associate of Applied Science – Radiologic Technology**  
**Review Period: Spring 2013**

**1. PROGRAM GOAL AND STUDENT LEARNING OUTCOMES**

Program goal statement:

The purpose of the Radiologic Technology Program is to provide students with integrated learning experiences in theory and practice that will enable them to provide high quality images and patient care in keeping with the service excellence philosophy of Dalton State College. In the professional course providing these skills and experiences, students are expected to successfully complete the national registry/certification examination.

**Goal #1:** The program will provide quality educational opportunities for students enrolled in the Radiologic Technology program.

**Goal #2:** The program will facilitate student development of problem-solving and critical thinking skills in the theory and practice of Radiologic Technology.

**Goal #3:** The program will prepare program graduates to be highly-qualified entry-level Radiologic Technologists.

**Goal #4:** The program will provide radiology employers in the Dalton State College service region with highly-qualified entry-level Radiologic Technologists.

Program outcomes:

Students who complete the Associate of Applied Science in Radiologic Technology will be able to:

1. Demonstrate knowledge and application of the principles of radiation protection and biology.
2. Demonstrate knowledge and application of human anatomy, physiology, terminology, pathology, and procedures.
3. Demonstrate knowledge and application of the principles of image acquisition and exposure.
4. Demonstrate knowledge and application of radiologic equipment and science.
5. Demonstrate knowledge and application of general and emergency patient care techniques and patient education.
6. Demonstrate knowledge and application of positive communication and ethical practices.
7. Demonstrate knowledge and application of good professional judgment using both common sense and critical thinking skills.
8. Exercise confidentiality of patient information.
9. Recognize the need for additional advanced imaging procedures.
10. Recognize the need for continuing educational opportunities in the pursuit of life-long learning.

## 2. MEASURES OF EFFECTIVENESS/PROGRAM-LEVEL OUTCOMES

### (a) Five-year enrollment summary by headcount, FTE, & full-time/part-time status (duplicated fall, spring, and summer)

	2009-10	2010-11	2011-12	2012-13	2013-14	% Change
Headcount	104	127	121	141	130	25.0%
FTE	99	117.8	105.8	124.3	117.4	18.6%
Full-time	78	93	75	92	80	2.6%
Part-time	26	34	47	49	50	92.3%

#### Analysis and comments:

The radiologic technology is limited to 17 incoming freshmen students that start the two-year (six-semester) program. That means 17 Freshmen students and 17 returning Sophomore students for a total of 34 students enrolled in the program at one time.

### (b) Five-year enrollment summary by gender & race/ethnicity (unduplicated, fall only)

	2009-10	2010-11	2011-12	2012-13	2013-14	% Change
<b>Gender</b>						
Female	72	92	81	104	97	34.7%
Male	32	35	40	37	33	3.1%
<b>Race/Ethnicity</b>						
American Indian	0	0	1	1	0	-
Asian	0	0	0	0	0	-
African-American	0	0	1	0	0	-
Hispanic	7	5	4	17	32	357.1%
White	83	105	88	102	87	4.8%
Multiracial	1	1	2	3	2	100%
Undeclared	9	14	21	14	6	-33.3%

#### Analysis and comments:

The rad tech program historically has a female and white population. There are more Hispanic students showing interest in the program.

### (c) Average class size, GPA, and credit hours

	2009-10	2010-11	2011-12	2012-13	2013-14
Average class size	17	16.63	17	17	14.25
Student credit hours	425	413	425	400	351
Credit hours/FTE faculty	15	15	15	15	15

#### Analysis and comments:

The rad tech program is accredited to host 17 incoming students in the program.

**(d) Faculty teaching in program**

	2009-10	2010-11	2011-12	2012-13	2013-14
Total Faculty	2	2	2	2	2
Full-time Faculty	2	2	2	2	2
Part-time Faculty	0	0	0	0	0
<b>Gender</b>					
Male	0	0	0	0	0
Female	2	2	2	2	2
<b>Race/Ethnicity</b>					
American Indian/Pacific	0	0	0	0	0
Asian	0	0	0	0	0
African-American	0	0	0	0	0
Hispanic	0	0	0	0	0
White	2	2	2	2	2
Multiracial					
<b>Tenure Status (full-time)</b>					
Tenured	1	1	1	1	1
On-tenure track	1	1	1	1	1
Non-tenure track	0	0	0	0	0
<b>Rank (full-time)</b>					
Professor	0	0	0	0	0
Associate Professor	1	1	1	1	1
Assistant Professor	0	0	1	1	1
Instructor/Lecturer	1	1	0	0	0
<b>Highest Degree (full-time)</b>					
Doctorate	0	0	0	0	0
Specialist	0	0	0	0	0
Master's	1	1	1	1	1
Bachelor's	0	0	1	1	1
Associate's/Other	1	1	0	0	0

**Analysis and comments:**

The number of faculty has remained stable at two, full-time since the program began at Dalton State in 1998. 100% of the faculty are on tenure track. Susan D. West is currently enrolled in a Doctorate in Education program and has only the dissertation to finish. Cindy Fisher will be starting a Master's Degree program Fall 2013.

**(e) Percent of classes taught by full-time faculty**

2009-10	2010-11	2011-12	2012-13	2013-14
100	100	100	100	100

Analysis and comments:

All classes taught in the Dalton State College Radiologic Technology program are taught by full-time faculty.

**(f) Number of degrees conferred**

2009-10	2010-11	2011-12	2012-13	2013-14
14	16	17	16	16

Analysis and comments:

The number of degrees conferred has risen slightly since 2007-08. The program has a limited enrollment of 17 entering Freshmen each year. The program has a five year retention rate of 93%.

**(g) Placement rates: Five-year summary of job placement rates, if applicable**

2007-08	2008-09	2009-10	2010-11	2011-12
100	94	94	90	90

Analysis and comments:

The job placement rate has declined for graduates of the radiologic technology program possibly due to the downturn in the economy in the North Georgia region. More graduates are finding employment on a part-time basis and not full time. Some of the graduates work at two or more part-time jobs in the radiologic field.

**(h) Summary and evidence of achievement of program outcomes**

<u>Describe the extent to which students have achieved current program outcomes</u>		
Program Outcome	Benchmarks & Assessment Measures	Evidence/Results of Assessment
1. Demonstrate knowledge and application of the principles of radiation protection and biology.	1. Passing score of above 75% on radiation protection and biology section of national board examination for radiologic technologists administered by the American Registry of Radiologic Technologists (ARRT).	1. 100% of students passed the section for radiation protection and biology with at least a score of 75%.
2. Demonstrate knowledge and application of human anatomy, physiology, terminology, pathology, and procedures.	2. Passing score of above 75% on radiologic procedures (which includes anatomy, physiology, terminology, pathology, and procedures) section of national board examination for radiologic technologists administered by the American Registry of Radiologic Technologists (ARRT).	2. 100% of students passed the section for radiologic procedures (which includes anatomy, physiology, terminology, pathology, and procedures) with at least a score of 75%.
3. Demonstrate knowledge and application of the principles of image acquisition and exposure.	3. Passing score of above 75% on the application and principles of image acquisition section of national board examination for radiologic technologists administered by the American Registry of Radiologic Technologists (ARRT).	3. 100% of students passed the section for application and principles of image acquisition with at least a score of 75%.
4. Demonstrate knowledge and application of radiologic equipment and science.	4. Passing score of above 75% on the application and principles of radiologic equipment and science section of national board examination for radiologic technologists administered by the American Registry of Radiologic Technologists (ARRT).	4. 100% of students passed the section for application and principles of radiologic equipment and science acquisition with at least a score of 75%.

<p>5. Demonstrate knowledge and application of general and emergency patient care techniques and patient education.</p>	<p>5. Passing score of above 75% on the application and principles of general and emergency patient care techniques and patient education section of national board examination for radiologic technologists administered by the American Registry of Radiologic Technologists (ARRT).</p>	<p>5. 100% of students passed the section for application and principles of general and emergency patient care techniques and patient education with at least a score of 75%.</p>
<p>6. Demonstrate knowledge and application of positive communication and ethical practices.</p>	<p>6. Passing score of above 75% on the application of positive communication and ethical practices in the patient care and education section of national board examination for radiologic technologists administered by the American Registry of Radiologic Technologists (ARRT).</p>	<p>6. 100% of students passed the section for application of positive communication and ethical practices in the patient care and education section with at least a score of 75%.</p>
<p>7. Demonstrate knowledge and application of good professional judgment using both common sense and critical thinking skills.</p>	<p>7. Passing score of above 75% on the application of good professional judgment using both common sense and critical thinking skills in the patient care and education section of national board examination for radiologic technologists administered by the American Registry of Radiologic Technologists (ARRT).</p>	<p>7. 100% of students passed the section for application of good professional judgment and critical thinking skills in the patient care and education section with at least a score of 75%.</p>
<p>8. Exercise confidentiality of patient information.</p>	<p>8. Passing score of above 85% for the student group on the average score on student clinical evaluation.</p>	<p>8. Student group average on the student clinical evaluation was above 85% for the student group.</p>
<p>9. Recognize the need for additional advanced imaging procedures.</p>	<p>9. Passing score of above 85% for the student group on the average score on student exit program evaluation.</p>	<p>9. Student group average on the student exit program evaluation was above 85% for the student group.</p>

10. Recognize the need for continuing educational opportunities in the pursuit of life-long learning.	10. Passing score of above 85% for the student group on the average score on student exit program evaluation.	10. Student group average on the student exit program was above 85% for the student group.
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**(i) Summary and evidence of achievement of student learning outcomes**

Describe the extent to which students have achieved current student learning outcomes in Area F and/or upper-division courses, if applicable. (current year)

The students who have completed the rad tech program have achieved the student learning outcomes for a student graduating the program.

**(j) Evidence of program viability**

Based on enrollment history, retention rates, degree completion/graduation rates, and other program outcomes, comment on whether continued resources should be devoted to this program. Your comments should consider external factors such as the following: Are your students getting jobs? What is the job outlook for graduates? Are students prepared for the jobs they get? How is the field changing? Are the program faculty members in touch with employers and getting feedback on our students' performance? Do employers see a need for changes in the program?

The Rad Tech program has a 100% passing rate on the national certification examination administered by the ARRT (American Registry of Radiologic Technologists) since the program started at Dalton State College in 1998. The graduates have been placed in either part-time or full-time radiology positions within 1 year of program graduation. More and more clinical environments are hiring graduates on a part-time basis due to the associate costs of benefits for full-time positions. The program faculty surveys the graduate's employer at the end of the first year of employment to assess the readiness of the graduate after they leave the program. This assessment is analyzed by program faculty to assess that the program is offering the appropriate level of radiologic information and clinical experience to enrolled students which meet the current clinical trends in radiology clinical departments. Graduate assessments are also completed one year post graduation from the graduates themselves. Both the results from employers and graduates are discussed with the program Advisory Committee and recommendations for change are discussed if needed.

### 3. USE OF ASSESSMENT RESULTS FOR PROGRAM IMPROVEMENT

What improvements have occurred since the last program review or assessment?

The program has installed a digital x-ray unit so that the students can practice x-ray simulations using the types of equipment that are not being installed in the clinical environments that students rotate through while assigned to their clinical rotations.

### 4. REVIEW OF CURRICULUM

What changes or revisions have been made to the program, its curriculum, or its student learning outcomes since the last program review or assessment?

The program has added more information on digital imaging to reflect the newest imaging technologies currently used in the clinical settings.

### 5. PROGRAM STRENGTHS AND WEAKNESSES

Strengths:

1. Dedicated and experience faculty. The program director has a 30 year 100% passing rate on the national board examination for the graduates that she has taught.
2. 100% passing rate on the national board examination since the program opened at Dalton State in 1998.
3. Dedicated computer usage and space for the program classroom assists each student to self-evaluate their weaknesses and strengths of radiologic curricula.
4. Adequate clinical facilities for student assignments.
5. Dedicated x-ray lab with both conventional and digital image equipment that is used to demonstrate radiologic imaging and positioning techniques.

Weaknesses and concerns:

A decreased marketing budget has impacted the number of applicants applying to the program each year.



Prepared by: Susan P. West, Chair Allied Health

Date: 4/18/14

Reviewed by: [Signature], DEAN SCHOOL OF HEALTH PROFESSIONS

Date: 05/08/2014

Reviewed by Chair of Program Review Subcommittee: Marjorie M. Adams

Date: 7/15/14

Reviewed/Approved by Vice President for Academic Affairs: Shirley S. Stone

Date: 7/11/14