PROGRAM REVIEW

A PROCESS FOR SELF-EVALUATION AND CONTINUOUS IMPROVEMENT

RADIATION THERAPY TECHNOLOGY

Updated 2019

TABLE of CONTENTS

Program Review…… 3

Program Review Team…… 3

Date of This Report……. 3

Period of Years Being Reviewed……. 3

Overview…… 4-8

Summary of Significant Developments Since Last Program Review……. 8

Focus on Students …… 9

Demographics…… 9-11

Student Satisfaction……... 11

Learning Outcomes Assessments……...…… 11-22

Student Success……... 15-22

Focus on Faculty and Staff ……. 23

Demographics……. 23-24

Professional Activities…… 24-25

Staff…… 25-30

Focus on Curriculum……... 31

Summary of Program Curriculum…….31-40

Curriculum Issues……. 40-41

Lead-in / Follow-up Courses……. 41-42

Scheduling……..…… 42

Assessment……..... 43

Innovations or Changes in Last Five Years……...… 43-44

Focus on Support…….……. 44-46

Technology……..... 44

Facilities and Equipment……45

Learning Resources……...……. 45-46

Marketing and Public Relations…… 46-47

Support Services…… 46

Resources, Budget……. 46-47

Focus on Community…….. 47-50

Community Groups……...……47-48

Community Issues Related to Program…… 48-50

External Requirements or Considerations…….50

Advisory Boards…… 51-53

Summary…… 53-58

Program Achievements, Progress Made Since Last Review…….53-58

Mission/Goals/Objectives……. 56

Strengths…… 56

Challenges……. 57

Recommendations for Change……... 57

Action Plan…… 57-58

PROGRAM: Radiation Therapy Technology

PROGRAM REVIEW TEAM: James W. Godin, Brooke Chapman

DATE OF THIS REPORT: February 1, 2019

PERIOD OF YEARS BEING REVIEWED: Class of 2015-2016 to 2017-2018 (3 Years)

OVERVIEW

The CSN Radiation Therapy Program is a twenty-one month Associate of Applied Science program that demonstrates education and licensing requirements of the Nevada System of Higher Education Compliance, compliance to The Northwest Commission on Colleges and Universities Standards for accreditation, offers the student a curriculum akin to the nationally recognized American Association of Radiologic Technologists (ASRT) Radiation Therapy Curriculum and is recognized by the American Registry of Radiologic Technologists (ARRT) to grant national registration status in Radiation Therapy to our graduates.

Program Accreditation:

The Radiation Therapy Program at the College of Southern Nevada is accredited by the Northwest Commission on Colleges and Universities
NWCCU
8060 165th Avenue NE
Suite 100
Redmond, WA 98052

Phone: 425-558-4224
Fax: 425-376-0596

The Professional Curriculum: The American Society of Radiologic Technologists (ASRT)

The American Society of Radiologic Technologists (ASRT) Radiation Therapy Curriculum is a collaborative effort designed to offer foundational professional development as well as meet the accreditation requirements of the Joint Review Committee on Education in Radiologic Technology (JRCERT) Standards and the National Registration Examination administered by the American Registry of Radiologic Technologists (ARRT). The ASRT radiation therapy professional curriculum professes to be in line with a baccalaureate education.
The educational structure for the College of Southern Nevada's AAS program in Radiation Therapy Technology has three primary areas of concentration:

- liberal arts and sciences

- radiotherapy core courses
- clinical education

General education is an integral part of the radiation therapy professional curriculum. In addition to being the foundation for the program course work, this portion serves as a springboard to promote further academic achievement. Candidates for our program must have achieved completion of the Limited Entry requirements to be considered eligible for entrance. The student is required to have documented college course work in human anatomy and physiology, general physics, oral and written communication skills, statistics and college mathematics. These program requirements are aligned with the ASRT Gold Standard Curriculum in Radiation Therapy.

The professional component deals with theoretical studies and principles, while the clinical education component concerns itself with its application and the cultivation of sound professional and ethical practices. This AAS program created its policies and procedures to provide the student with the proper didactic and clinical education for success in becoming a contributing professional member of the health care team. The primary purpose of these policies is two-fold: the welfare of the patient and the perpetuation of professional standards.

National Registration: American Registry of Radiologic Technologists (ARRT)

The American Registry of Radiologic Technologists® (ARRT) establishes qualifications for certification and registration in the discipline of radiation therapy. These qualifications include the candidates' successful completion of the ARRT Radiation Therapy Didactic and Clinical Competency Requirements as part of the educational program.

Didactic competency requirements verify that individuals had the opportunity to develop fundamental knowledge, integrate theory into practice and hone affective and critical thinking skills required to demonstrate professional competency. Coursework addressing the topics are listed in the ARRT Content Specifications for the Radiation Therapy Examination. This coursework is aligned with the nationally-recognized ASRT Radiation Therapy Curriculum. "The purpose of The American Registry of Radiologic Technologists® (ARRT®) Radiation Therapy Examination is to assess the knowledge and cognitive skills underlying the intelligent performance of the tasks typically required of the staff radiation therapist at entry into the profession."

Additionally, the ARRT requires documentation of 48 clinical competencies for the candidate to achieve national registration. Demonstration of clinical competence means that the candidate has performed the procedure independently, consistently, and effectively during the course of his or her formal education.

Specific procedures for clinical competency include six (6) patient care procedures in addition to CPR, three (3) quality assurance procedures, treatment simulation for seven (7) anatomic regions, six (6) treatment plan dosimetry calculation procedures, four (4) treatment

accessory device procedures, three (3) infrequent yet critical participatory procedures, and eighteen (18) radiation therapy treatment procedures.

Radiation Therapy Technology Program - Mission Statement

The Radiation Therapy Program at the College of Southern Nevada is dedicated to the provision of quality healthcare to the residents of Nevada through the education of Radiation Therapist who are competent to meet the needs of patients and employers. Additionally, the program will promote values and skills that provide the basis for continuing professional development.

Radiation Therapy Technology Program – Program Goals and Student Learning Outcomes

In fulfillment of this Mission, the Radiation Therapy Program at The College of Southern Nevada upholds the following goals:

Goal 1: The mission of the Radiation Therapy Department at CSN is to prepare students to successfully enter the workforce as competent, entry-level radiation therapists with demonstrated skill in the radiotherapy field.

Student learning Objectives**:**

- Student will maintain a minimum "C" grade on all didactic and clinical courses.
- Students will demonstrate clinical competence as documented on monthly evaluations.
- Students will be skillful in machine operation & patient set-ups.
- Students will be competent at verification & implementation of radiation therapy treatment plans.
- Students will observe and report individual patient needs as they develop.

Goal 2: Students will develop the necessary skills to achieve ARRT certification.

Student learning Objectives**:**

- Students will demonstrate communication skills in written and oral presentations.

Students will demonstrate technical skills on a variety of modern

- treatment units and CT simulators.
- Students will demonstrate patient care skills during nursing and clinical rotations.
- Students will successfully complete the liberal arts courses required for the

program.
- Students will obtain the AAS degree.

- **Goal 3**: Students will develop the necessary skills to obtain employment within the radiation therapy field.

Student learning Objectives**:**

- Students will recognize set up discrepancies and machine faults.
- Students will produce and interpret treatment plans.
- Students will summarize the concepts and components of work ethics and exemplify their understanding.
- Students will demonstrate professional behavior and commitment to the highest professional standards of ethical conduct by promoting the values of compassion, respect and dignity.

The purpose of Radiation Therapy Program at The College of Southern Nevada is to fulfill its mission and goals through the completion of stated outcomes and objectives. The student has the responsibility to make the most of these educational experiences, and once accepted, is obligated to abide by the policies and procedures of the College of Southern Nevada's Radiation Therapy Program.

The College of Southern Nevada Vision, Mission and Values Vision

The College of Southern Nevada is a premier learning institution:

- Promoting student success through excellence in teaching and learning,
- Providing a highly educated, civically engaged, and skilled workforce,
- Using innovative technology and available resources effectively,
- Increasing alternative funding sources,
- Acting environmentally responsible, and
- Emphasizing fact-based decision making and accountability to all stakeholders.

Mission

To create opportunities and change lives through
access of quality teaching, services, and experiences
that enrich our diverse community

Values

To strive for high quality in all endeavors. We value:

- LEARNING- quality teaching, flexible scheduling, and total access allowing opportunities for all ages and backgrounds for student success;
- SHARED GOVERNANCE- communication across multiple campus sites among our faculty, staff, and students, and with local partnerships and state communities;
- STUDENTS- a student-focused environment where academic freedom is utilized to broaden student knowledge beyond the classroom, and

- COMMUNITY- a diverse community, fostering integrity and honesty, professional development, and innovative learning for our students, faculty, and staff.

Alignment: The Radiation Therapy Technology Program with the Sponsoring Institution

The College of Southern Nevada's Radiation Therapy Technology Program is the only radiation therapy training program in the state of Nevada. Where other health profession training programs have long seen the move from hospital based to college based sponsorship, radiation therapy has lagged behind due to the select population that is attracted to this highly sophisticated degree of specialization.

As a college based program, we are fortunate to be able to offer our students federal and state financial assistance in planning for and meeting expenses associated with attendance at CSN. The Office of Financial Aid focus on establishing aid eligibility, awarding grants, loans, and employment and providing financial aid counseling to resolve difficulties associated with the cost of education.

The program desires a better future for our graduates and the population that they serve. We are fortunate to be in one of the most affluent counties in Nevada. Our clinical affiliates offer our students the opportunity to learn a variety of cutting-edge treatment techniques on state-of-the art equipment to best serve our cancer patients.

The Radiation Therapy program aligns with the core values of the college simply by the nature of the profession itself. Precision and attention to detail are personality traits that the profession attracts. Learning, Excellence, Integrity, Respect and Creativity are values that align with the core beliefs of the program and our external accreditation agency.

SUMMARY OF SIGNIFICANT DEVELOPMENTS SINCE LAST PROGRAM REVIEW

The Radiation Therapy Technology Program has been offered at CSN since 2002, and this year is the second opportunity for us to perform a program review. Since our first graduating class in 2003 there has been significant developments in curriculum, student assessment and student support.

The ARRT first-attempt pass rate for the current five-year period from 2012-2017 is 88%. This is a significant increase from 74% in the previous five years from 2008-2012. The overall pass rate, including second attempts, for the past five years is 98%.

The curriculum course content has been revised in 2010 and 2015 to be in compliance with the ARRT curriculum guidelines. These revisions offer the student the latest data relevant to the profession and reflect the dynamic health care environment. The program is web enhanced. Handouts, quizzes, homework assignments, tests and exams utilize Canvas Learning Platform

for delivery. Critical thinking skills and group dynamics are developed and tested in the laboratory experience using the Virtual Environment in Radiation Therapy (VERT) machine.

The program has achieved support from the college community. The Tutoring Center, Career Development, the Library and Continuing Education all play an integral part in the training of our Radiation Therapists. Additionally, the Foundation offers CSN graduates the opportunity for scholarship funding for Radiation Therapy students.

The program has gained recognition throughout Nevada and the surrounding states. In addition to sixteen (16) Nevada counties, we have graduates from California, United Kingdom, Canada, and Australia. The ethnicity and level of education of our students as well as the age range is diverse. The fact that our program is community college based and requires only twenty-one months makes it attractive and affordable in value and time commitment.

Demographics

The following three-year demographic data was provided by the Center for Institutional Resources.

The CSN Radiation Therapy Program is mostly comprised of Nevada residents. A small percentage (approximately 10%) of our students come from states that do not afford the resident the opportunity to complete an accredited Radiation Therapy program in a 21-month period.

State of Residence	Fall 2015-16		Fall 2016 -17		Fall 2017-18		Total	
	#	%	#	%	#	%	#	%
Nevada	9	81.8%	11	100%	6	100%	26	92.8%
Arizona	1	9.1%	0	0.0%	0	0.0%	1	7.2%
Oklahoma	1	9.1%	0	0.0%	0	0.0%	1	7.2%
Total Enrollment	**11**	**100.0%**	**11**	**100.0%**	**6**	**100.0%**	**28**	**100.0%**

Due to the location of the college and the clinical education training centers, most of our students are residents of Clark County. Since we are the only college-based Radiation Therapy training program in NV, we have attracted students from nine additional counties. The majority of the out of-county students come from Washoe county.

County of Residence	Fall 2015-16		Fall 2016-17		Fall 2017-18		Total	
	#	%	#	%	#	%	#	%
Clark	9	81.8%	9	81.8%	6	100%	24	94.1%
Lincoln	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Nye	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Esmerelda	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Mineral	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Elko	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Washoe	0	0.0%	2	18.2%	0	0.0%	2	2.95%
Churchill	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Lander	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Eureka	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Out-of-state	2	18.2%	0	0.0%	0	0.0%	2	2.95%
Total Enrollment	**11**	**100.0%**	**11**	**100.0%**	**6**	**100.0%**	**28**	**100.0%**

To best serve our Radiation Oncology community, our program is honored to represent a diverse race/ethnicity population. Of the race/ethnicity populations defined by the College of Southern Nevada, only the Alaska Native have not been represented in our program.

Race/Ethnicity	Fall 2015-16		Fall 2016-17		Fall 2017-18								Total	
	#	%	#	%	#	%							#	%
Am. Indian/Alaska Native	0	0.0%	0	0.0%	1	16.6%				Am. Indian			1	3.6%
Asian	2	18.0%	0	0.0%	0	0.0%							2	7.1%
Black/African American	0	0.0%	0	0.0%	0	0.0%							0	0.0%
Hawaiian/Pacific Islander	1	9.0%	0	0.0%	0	0.0%							1	3.6%
Hispanic, all races	1	9.0%	3	27.3%	2	33.4%							6	21.4%
Two or more races	0	0.0%	0	0.0%	0	0.0%							0	0.0%
White	7	64.0%	8	72.7%	3	50.0%							18	64.3%
Total Known Race	**11**	**100.0%**	**11**	**100.0%**	**6**	**100.0%**							**28**	**100.0%**
Non-Resident Alien	0	0.0%	0	0.0%	0	0.0%							0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%							0	0.0%
Total Enrollment	**11**	**100.0%**	**11**	**100.0%**	**6**	**100.0%**							**28**	**100.0%**

The College of Southern Nevada's Radiation Therapy Technology Program is designed to attract students from a wide age range. In addition to the traditional college population, this program affords the returning student the opportunity to further their education and achieve Radiation Therapy credentialing in twenty-one months of full-time study. The majority of our students are 25 years and older.

Age Range	Fall 2015-16		Fall 2016-17		Fall 2017-18								Total	
	#	%	#	%	#	%							#	%
Under 18 years old	0	0.0%	0	0.0%	0	0.0%							0	0.0%
18 to 21 years old	0	0.0%	3	27.3%	0	0.0%							3	10.7%
22 to 24 years old	2	18.2%	0	0.0%	1	16.7%							3	10.7%
25 to 34 years old	7	63.6%	7	63.6%	4	66.7%							18	64.3%
35 years and older	2	18.2%	1	9.1%	1	16.6%							4	14.3%
Unknown	0	0.0%	0	0.0%	0	0.0%							0	0.0%
Total Enrollment	**11**	**100.0%**	**11**	**100.0%**	**6**	**100.0%**							**28**	**100.0%**

The following data documents a 39.3% male to 60.7% female ratio.

Gender	Fall 2015-16		Fall 2016-17		Fall 2017-18								Total	
	#	%	#	%	#	%	#						#	%
Male	4	36.4%	4	36.4%	3	50.0%							11	39.3%
Female	7	63.6%	7	63.6%	3	50.0%							17	60.7%
Unknown	0	0.0%	0	0.0%	0	0.0%							0	0.0%
Total Enrollment	**11**	**100.0%**	**9**	**100.0%**	**11**	**100.0%**							**28**	**100.0%**

Student Satisfaction

An annual anonymous survey is distributed to all graduates. It is designed to evaluate:

1. Compliance to the Program Mission Statement and Goals
2. The Program Curriculum
3. Preparation for employment as an entry level Radiation Therapist

A summary of the following data shows that 26 of the 28 responses indicate that the program Mission Statement is demonstrated by the program and 28 of the 28 responses indicated that the Program Goals are demonstrated by the program.

	2015-2016			2016-2017			2017-2018								
	#	Yes	No	#	Yes	No	#	Yes	No						
1. Do you feel that the Mission Statement is demonstrated by the program?	11	11		10	1	1	6	5	1						
2. Do you feel that the stated Program Goals are demonstrated by the program?	11	11		11	11		6	6							

Learning Outcomes Assessments

Program Assessment is essential to the integrity of the Radiation Therapy Technology program and mandatory for accreditation.

The College of Southern Nevada's Radiation Therapy Program annual assessment plan is designed to improve student learning and the educational quality of our program. The plan includes four goals that evaluate clinical competence, critical thinking and problem solving, verbal and oral communication skills and professionalism. The plan includes student learning outcomes, measurement tools, benchmarks, timeframes for the assessment and collection of data

and the parties responsible for the collection of data. The result chart is used to document and assess data on a yearly basis. The original assessment plan of the program was reviewed, revised and approved by the program in 2015.

The program analyzes student learning outcome data and program effectiveness data annually and submits the results to the Office of Assessment at CSN. The data submitted is reviewed with the Radiation Therapy Advisory Board annually with discussion for improvement. In addition to the Program Director and Clinical Director, the advisory board consists of a Radiation Oncologist, a medical physicist, a lead therapist/supervisor from five of the program's clinical education sites, a member of the public and one student representative. The board is presented with a yearly assessment plan complete with student learning outcome data and assessment tools. In a step-by-step evaluation, the board reviews the mission statement, each program goal and the assessment tool used to evaluate the program goals. Additionally, the program presents to the board information collected from program effectiveness data, namely ARRT pass rate data, employer survey data and graduate survey data to evaluate student learning outcome data and the assessment plan.

Content of the Radiation Therapy Outcome Assessment Plan:

3-Year Assessment Plan

Degree Program: Radiation Therapy (Board Certified)

Program Director: Jim Godin

Academic Year: Multiyear plan (2015-2016, 2016-2017, 2017-2018)

Program Mission and Goals

- The mission of the Radiation Therapy Department of CSN is to prepare students to successfully enter the workforce as competent, entry-level radiation therapists with demonstrated skill in the radiotherapy field.
- Students will develop the necessary skills to achieve ARRT certification.
- Students will develop the necessary skills to obtain employment within the radiation therapy field.

Program Outcomes

- Compare various forms of cancer as related to pathology, spread, and treatment
- Evaluate patients for treatment side effects while integrating patient education
- Verify and complete a treatment plan including correct documentation
- Model radiation protection and quality assurance procedures

Direct Measures of Learning

- All students will complete RDTP 219 during which he/she will demonstrate the correct execution of a full treatment plan on a patient

Indirect Measures of Learning

- All students will maintain passing (C or higher) grades in each course.
- At least 80% of the students will pass the national ARRT registry at the end of the program.
- At least 80% of the incoming students will graduate from the program.
- Course effectiveness surveys

3-Year Action Plan

Year 1: 2015-2016

- Revise program curriculum to ensure adequate coverage of ASRT and ARRT educational outcomes: RDTP 101, RDTP 102, RDTP 103, RDTP 105, RDTP 115, RDTP 125, RDTP 150, RDTP 210, RDTP 211, RDTP 220, RDTP 221, RDTP 230, RDTP 180, RDTP 202, RDTP 212, RDTP 213, RDTP 214, RDTP 215, RDTP 216, RDTP 219, RDTP 229.
- Evaluate program courses in preparation for JCERT accreditation.
- Assess adequacy of program prerequisites in preparation for moving to a 3 + 1 program.
- Review clinical practicum evaluation tools and measures of student learning: RDTP 231, RDTP 232, RDTP 233, RDTP 234.
- Submit all course curriculum changes for approval.
- Submit annual report program data.

Year 2: 2016-2017

- Develop a long-term plan for clinical site expansion.
- Develop a long-term plan for program enrollment expansion.
- Submit all course curriculum changes for approval.
- Submit annual report program data.

Year 3: 2017-2018

- Submit all course curriculum changes for approval.
- Review and revise or affirm program outcomes and measures of learning leading into the next multiyear assessment plan.
- Submit annual report program data.
- Write the next multiyear plan.

Please see attachment # 3 for both LEAP and CSN Standard assessment forms.

Sharing student outcome and program effectiveness data:

Program effectiveness data is conveyed on the College of Southern Nevada, Radiation Therapy webpage (www.csn.edu/programs/radiationtherapy). This website is updated annually and is designed to give the prospective student an overview of the practice of radiation therapy, an overview of our program, our program's effectiveness data, and the requirements for entrance into the program.

Changes that have occurred:

- The program revised its outcome assessment plan in 2015 and implemented the new plan in 2015.

- The program changed many assessment tools to better assure reliability and validity in that the assessment process is effective in measuring student learning outcomes. Rubrics were added to help assure equitable grading.

- Job Placement Rate: In addition to the state of Nevada, we have numerous graduates employed in other states such as California, Arizona, Texas, Washington, Alaska, Georgia, and Maryland. Of the students who were actively seeking employment in the field post-graduation, the overall program job placement rate was 83.3%.

- Retention Rate: Our 90% program completion rate represents the success of our students and an effective outcome assessment tool.

- Our American Registry of Radiologic Technologists (ARRT) Radiation Therapy Credentialing Examination pass rate data documents program improvement.
  The program is in compliance with JRCERT requirements of a 75% benchmark for first attempt credentialing pass rate on the ARRT National Registry Exam in Radiation Therapy over a five-year period. The program has documented a 92% first attempt pass rate for five of the past five years. The program aspires to continue to demonstrate a stable first attempt pass rate of 90%.

Program Effectiveness data:

National Comparison Report: ARRT Pass Rate from 2015 to 2018 documents an annual pass rate of 91.3%.

National Comparison Report

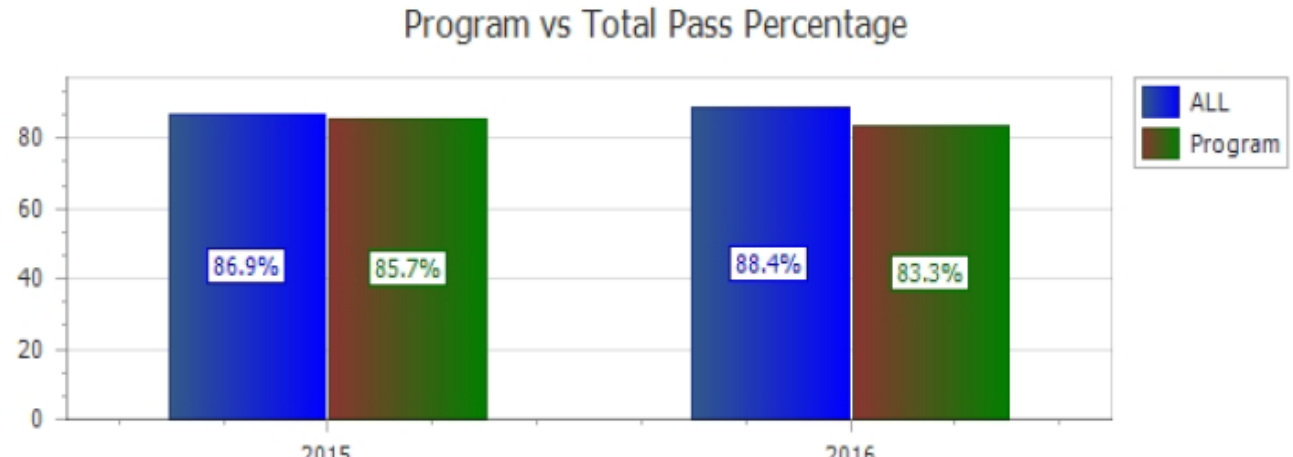
DEGREE PROGRAM IN RADIATION THERAPY
COLLEGE OF SOUTHERN NEVADA
JAMES W GODIN
6375 W CHARLESTON BLVD
LAS VEGAS, NV 89146-1139

School ID: 9226
Date Generated: 10/3/2018

Report based on dates from 01/2015 through 12/2016

Radiation Therapy

Calendar Year	Group	Number Candidates	Section Means A	B	C	D	E	Total Mean	Percentile Rank	% Pass
2015	ALL	878	8.2	8.2	8.1	8.6	8.4	82.5	-	86.9
2015	Program	7	8.5	8.4	8.4	8.7	8.7	84.7	75	85.7
2016	ALL	828	8.1	8.1	8.4	8.5	8.2	82.5	-	88.4
2016	Program	6	8.1	7.9	8.3	8.7	8.2	81.8	56	83.3



National Comparison Report

DEGREE PROGRAM IN RADIATION THERAPY

COLLEGE OF SOUTHERN NEVADA

JAMES W GODIN

6375 W CHARLESTON BLVD

LAS VEGAS, NV 89146-1139

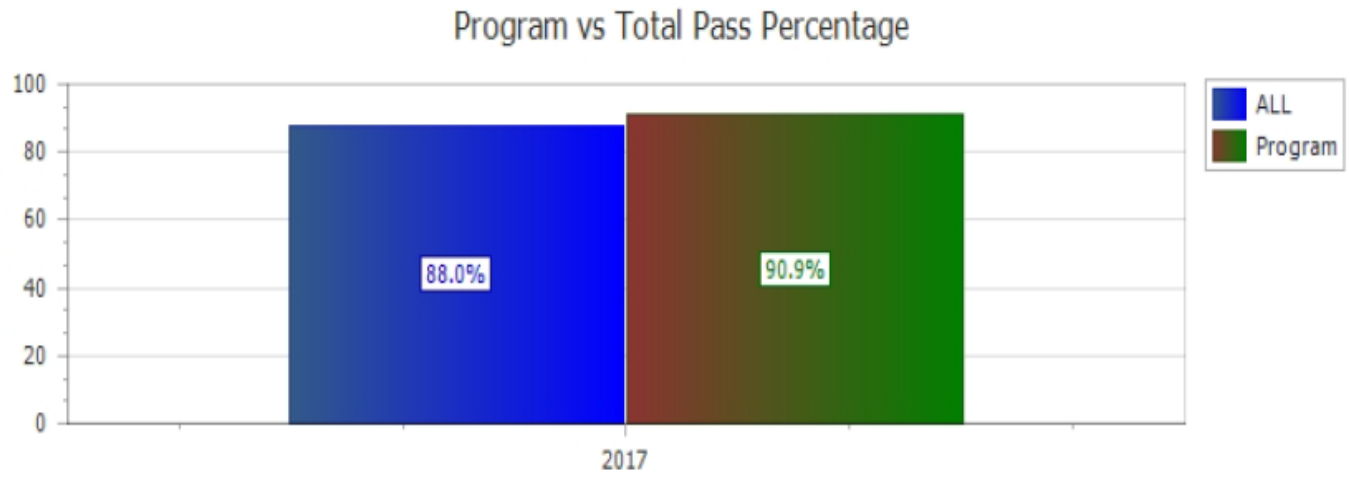
School ID: 9226

Date Generated: 10/3/2018

Report based on dates from 01/2017 through 12/2017

Radiation Therapy

Calendar Year	Group	Number Candidates	Section Means 1	2	3	4	5	6	7	8	Total Mean	Percentile Rank	% Pass
2017	ALL	807	8.5	8.3	7.7	8.4	8.4	8.2	7.9	8.4	82.4	-	88.0
2017	Program	11	8.4	8.1	7.6	8.3	8.8	8.2	8.1	8.3	82.7	62	90.9



NOTES:

(1) A percentile rank indicates the percentage of scores at or below the corresponding mean scaled score. Percentile ranks are rounded to

National Comparison Report

DEGREE PROGRAM IN RADIATION THERAPY

COLLEGE OF SOUTHERN NEVADA

JAMES W GODIN

6375 W CHARLESTON BLVD

LAS VEGAS, NV 89146-1139

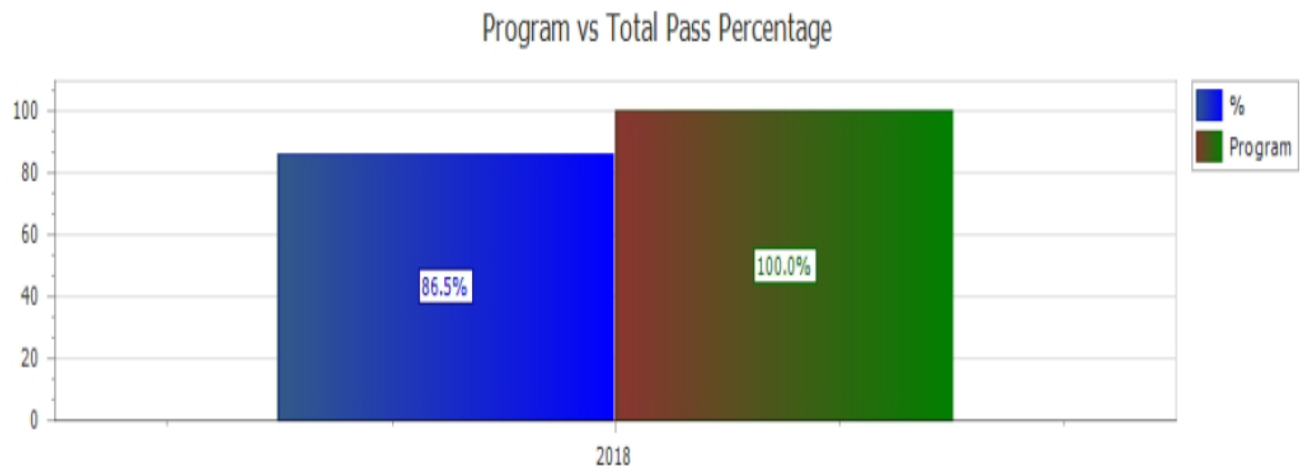
School ID: 9226

Date Generated: 1/24/2019

Report based on dates from 01/2018 through 12/2018

Radiation Therapy

Calendar		Number	Section Means										Total	Percentile	
Year	Group	Candidates	1	2	3	4	5	6	7	8	9	OBGYN	Mean	Rank	% Pass
2018	ALL	793	8.5	8.1	7.8	8.3	8.2	8.2	8.1	8.3	-		82.1	-	86.5
2018	Program	6	8.5	8.6	8.3	8.3	8.5	8.6	8.7	8.6	-		85.0	75	100.0



NOTES:

(1) A percentile rank indicates the percentage of scores at or below the corresponding mean scaled score. Percentile ranks are rounded to the nearest whole number.

Candidate Exam Results

DEGREE PROGRAM IN RADIATION THERAPY

COLLEGE OF SOUTHERN NEVADA

JAMES W GODIN

6375 W CHARLESTON BLVD

LAS VEGAS, NV 89146-1139

School ID: 9226

Date Generated: 10/3/2018

This report provides program directors with exam results for first-time candidates for a specified period of time. The report is based on graduation date or on exam administration date.

Please allow two weeks after the exam date for updates to appear on this report.

Graduation Date between 01/2016 and 12/2016

		Section Scaled Score					Total	Percentile	
Grad Date	**Exam Date**	**A**	**B**	**C**	**D**	**E**	**Scaled**	**Rank***	**Pass/Fail**
05/2016	05/2016	8.0	8.7	8.7	9.1	9.0	87	83	Pass
05/2016	05/2016	8.7	9.1	9.0	8.8	9.2	90	95	Pass
05/2016	05/2016	8.2	7.4	7.6	8.5	8.0	78	35	Pass
05/2016	05/2016	8.7	7.8	9.3	9.6	8.0	86	79	Pass
05/2016	05/2016	8.9	8.5	8.9	9.6	8.0	87	83	Pass
05/2016	07/2016	6.1	5.9	6.4	6.4	7.0	63	1	Fail
Exam Date Range Summary		6 examinees							

Candidate Exam Results

DEGREE PROGRAM IN RADIATION THERAPY

COLLEGE OF SOUTHERN NEVADA

JAMES W GODIN

6375 W CHARLESTON BLVD

LAS VEGAS, NV 89146-1139

School ID: 9226

Date Generated: 10/3/2018

This report provides program directors with exam results for first-time candidates for a specified period of time. The report is based on graduation date or on exam administration date.
Please allow two weeks after the exam date for updates to appear on this report.

Graduation Date between 01/2017 and 12/2017

Content Specification starting on 01/2017

Grad Date	Exam Date	Scaled Scores*								Total Scaled	Percentile Rank**	Pass/Fail
		1	2	3	4	5	6	7	8			
05/2017	05/2017	8.5	8.6	8.5	8.9	9.4	7.9	9.3	9.1	88	89	Pass
05/2017	05/2017	8.2	9.3	7.0	9.7	8.8	9.5	7.8	8.5	86	79	Pass
05/2017	05/2017	8.8	9.3	8.8	9.4	8.5	9.1	9.3	9.7	92	99	Pass
05/2017	05/2017	9.4	8.9	8.5	8.1	9.1	8.3	7.8	7.7	84	68	Pass
05/2017	05/2017	8.2	7.3	6.2	7.9	8.5	8.3	8.1	7.9	78	35	Pass
05/2017	05/2017	7.6	7.2	8.5	8.1	8.8	7.9	7.8	7.7	79	39	Pass
05/2017	05/2017	8.5	7.2	9.2	8.9	9.4	9.1	9.0	9.1	88	89	Pass
05/2017	05/2017	8.5	8.6	6.6	7.9	8.5	7.9	6.5	8.1	79	39	Pass
05/2017	05/2017	8.2	8.6	8.1	7.6	9.1	7.9	9.6	9.1	86	79	Pass
05/2017	05/2017	8.2	6.9	6.2	7.6	8.0	7.5	6.2	7.7	74	16	Fail

Candidate Exam Results

DEGREE PROGRAM IN RADIATION THERAPY

COLLEGE OF SOUTHERN NEVADA

JAMES W GODIN

6375 W CHARLESTON BLVD

LAS VEGAS, NV 89146-1139

School ID: 9226

Date Generated: 10/3/2018

This report provides program directors with exam results for first-time candidates for a specified period of time. The report is based on graduation date or on exam administration date.

Please allow two weeks after the exam date for updates to appear on this report.

Graduation Date between 01/2018 and 09/2018

Content Specification starting on 01/2017

		Scaled Scores*								Total Scaled	Percentile Rank**	Pass/Fail
Grad Date	**Exam Date**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**			
04/2018	05/2018	7.3	7.9	7.3	7.6	8.2	7.9	7.5	8.1	77	29	Pass
04/2018	05/2018	9.3	8.9	8.1	8.7	8.8	8.3	8.7	9.1	88	89	Pass
04/2018	05/2018	9.1	8.6	7.7	8.4	9.1	9.1	9.3	8.9	88	89	Pass
04/2018	05/2018	8.4	8.2	8.8	7.9	7.6	9.1	8.7	8.1	83	62	Pass
04/2018	05/2018	7.8	9.3	9.9	8.7	8.8	7.9	8.7	8.7	87	83	Pass
04/2018	05/2018	8.8	8.9	8.1	8.7	8.2	9.1	9.0	8.7	87	83	Pass
Exam Date Range Summary		6 examinees										
Report Total		**8.5**	**8.6**	**8.3**	**8.3**	**8.5**	**8.6**	**8.7**	**8.6**	**85**		100 %

*** Scaled Scores Section Legend + Number of Questions**

Job Placement Rate (JPR) – is defined as the number of graduates employed in the radiologic sciences compared to the number of graduates actively seeking employment in radiation therapy. The ARRT accrediting body has defined not actively seeking employment as: 1) graduate fails to communicate with program officials regarding employment status after multiple attempts, 2) graduate is unwilling to seek employment that requires relocation, 3) graduate is unwilling to accept employment due to salary or hours, 4) graduate is on active military duty, and/or 5) graduate is continuing education.

Three-year average job placement rate of not less than 75 percent within twelve months of graduation is required for accreditation.

Class	Graduates actively seeking employment	Graduates employed within 1 year of graduation		3 Year Job Placement Rate
	Number	Number	Percent	
2015-2016	4	4	100%	93.3%
2016-2017	6	6	100%	
2017-2018	5	4	80.0%	

Program Completion Rate (PCR) – is defined as the number of students who complete the program within (21 months) of the stated program. The program's benchmark for its program completion rate is 75%. The program specifies the final date to drop with 100% tuition refund as the entry point used in calculating program's completion rate.

Class	Attendants	Graduates	Program Completion Rate
2015-2016	11	7	63.3%
2016-2017	11	11	100%
2017-2018	6	6	100%
Total	28	24	87.8%

Professional Development and Growth - Level of Education of student attending the program compared to the number of students who graduate. The program does not collect data on postgraduate education; however, it is known that at least six student from the class of 2016, 2017 and 2018 is seeking a baccalaureate level degree at Nevada State College.

FOCUS ON FACULTY AND STAFF

Demographics

A full-time program director is required for program accreditation. The Radiation Therapy program consists of a full-time program director and a full time Clinical Director.

To comply with ASRT accreditation standards, a minimum of one clinical supervisor is designated at each recognized clinical setting.

The accrediting body (ASRT) set standards to assure that all faculty and staff possess academic and professional qualifications appropriate for their assignments.

- Full-time Program Director:
  Holds, at a minimum, a master's degree,
  Is proficient in curriculum design, program administration, evaluation, instruction, and academic advising,
  Documents three years clinical experience in the professional discipline, Documents two years of experience as a supervisor in an accredited program, and holds American Registry of Radiologic Technologists current registration in radiation therapy.
- Full-time or full-time equivalent Clinical Director:
  Holds, at a minimum, a baccalaureate degree (for a program with five (5) or more clinical education centers)
  Is proficient in curriculum development, supervision, instruction, evaluation, and academic advising,
  Documents two years' clinical experience in the professional discipline, Documents a minimum of one year of experience as a supervisor in an accredited program, and holds American Registry of Radiologic Technologists current registration in radiation therapy.
- Adjunct Didactic Program Faculty

Holds academic and/or professional credentials appropriate to the subject content area taught and is knowledgeable of course development, instruction, evaluation, and academic advising.

- Clinical Supervisor(s):
  Is proficient in supervision, instruction, and evaluation,
  Documents two years' clinical experience in the professional discipline, and holds American Registry of Radiologic Technologists current registration in radiation therapy.

Name	Program Role	Degree	Credentials	Assigned Courses
James Godin	Program Director Full-time Faculty	M.S., R.T.T.	RTT	RDTP 180, RDTP 202, RDTP 210, RDTP 213, RDTP 214, RDTP 215, RDTP 216, RDTP 219, RDTP 220, RDTP 229
Brooke Chapman	Clinical Director, Adjunct Faculty	B.S., R.T.T	RTT	RDTP 101, RDTP 102, RDTP 103, RDTP 105, RDTP 115, RDTP 125, RDTP 150, RDTP 211, RDTP 212, RDTP 230, RDTP 231, RDTP 232, RDTP 233, RDTP 234

In addition to the adjunct clinical supervisors there are also clinical supervisors at all the clinical sites that take part in over-seeing the radiation therapy students during their rotations. These clinical supervisors, who are not employed by the College of Southern Nevada (CSN), and are recognized and comply with the accreditation (ASRT) clinical supervisor requirements.

Professional Activities

The faculty and staff of the College of Southern Nevada (CSN) Radiation Therapy program are members of and/or participate in the following professional organizations:
American Registry of Radiologic Technologists (ARRT), American Society of Radiologic Technologists (ASRT).

The faculty of the program are committed to life-long learning. In order to maintain ARRT national registration and state licensure, a minimum of 24 continuing education units (CEU's) are required every two years. All CSN Radiation Therapy faculty are in good standing and are in compliance with ARRT registration requirements. In addition to participation in educational programs on campus, program faculty attend national educational and professional conferences and conventions. These annual national conventions are sponsored by the ASRT and ASTRO and are world-wide in scope. Some faculty have presented at these conventions as well as having published case studies. Many of the members have also undergone extensive training of various radiation therapy treatment devices, software programs and techniques.

Clinical faculty are available to help with student concerns, documentation and grading procedures. The program director offers the student five scheduled office hours per week. The college offers many professional development opportunities through Faculty Development. These workshops are open to all faculty and they are encouraged to attend.

Staff

Support staff consists of three full-time administrative assistants. These three assistants provide all programs in the department of Dental Sciences, Diagnostic Evaluation & Rehabilitation Services with support in several areas including the organization of program data, the ordering of supplies, distribution of communication from the college administration and program via electronic and paper mailings. These assistants maintain program grading documentation, syllabi, official schedules and faculty course assignment forms.

Faculty Resume

James W. Godin, B.S., R.T.(T), MHA (ARRT)
991 Crescent Meadows Court
Henderson, NV 89052
702-480-2519
jim.godin@csn.edu

PERSONAL

- Born: Burlington, Vermont 01/03/57
- Excellent health
- Married, twin daughters born 05/29/91
- Spouse is a Board Certified Adult Neurologist whose private practice in Las Vegas

EDUCATION

- Master of Arts in Health Services Administration, Webster University, 1991.
- Bachelor of Science in Education, University of Vermont, 1985.
- Associate of Science in Radiologic Technology, University of Vermont, 1982.

EMPLOYMENT

January 2002 to current:

Department Chair, Dental Sciences, Diagnostic Evaluation and Rehabilitation Services

- Department Chair will be responsible for assisting the deans in implementing the educational mission of the College of Southern Nevada by:
- Participation in short and long range planning and evaluation for facilities design, instructional, and staffing needs.
- Coordinate, manage, collaborate, and solve problems to attain educational goals.
- Act as an advocate for faculty.
- Serve as a liaison for students, per the Common Pages and Student Handbook.
- Collaborate in preparation and administration of budgets.
- Provide instructional leadership for the division.
- Facilitates community relations, as appropriate.
- Facilitate two-way communication between division members, deans, and other personnel as appropriate.

Program Director Radiation Therapy Technology

- Direct the daily operation of the school of radiation therapy at the College of Southern Nevada which currently offers an Associates of Applied Science degree.

- Daily management includes teaching of didactic courses in radiation therapy, directing clinical education at 5 clinical sites, ordering equipment, books and teaching materials, writing policies and procedures, and managing departmental budget.

- The job also includes grant writing, self study for Regional Accreditation, committee work as well as community service.

- **August 1999 to January 2002:**

Director, Radiation Oncology.

- Directed the daily operations of a free standing radiation oncology center in Las Vegas, NV.
- Daily management included marketing, staffing, education, development and maintenance of policies and procedures and treatments of the cancer patients.

1993 to 1999:

Independent Medical Consultant, President, and CEO, Southwest Medical Consultants

Consulting projects to date:

- Developed a neuro-oncology program for Pain Care Inc., H.C.A Coliseum Medical Center, Macon, Georgia.
- Organized and developed a free standing radiation oncology center for Columbia Regional Oncology Center, El Paso, TX.
- Developed a free standing radiation oncology center for College Park Radiation Therapy Associates, College Park, MD
- Consulted on a radiation oncology project with Columbia Hospital, Carlsbad, NM. Local physicians and investors.
- Worked with many physicians and multi-specialty groups to evaluate and provide recommendations to develop and/or streamline their practices.

Duties included but not limited to:

- Conducted feasibility studies and community need for programs above.
- Create, analyze and appraise budgetary goals and outcomes within the departments.
- Administer and appraise Quality Improvement activities.
- Control process related to Human Resources; inclusive to hiring, terminating, counseling, coaching and staff development, employee training and education.
- Develop, interpret, implement and review policies and procedures within departments.
- Collaborate and participate in marketing of the facilities, including educational program development, external advertising and working in alliance with local and regional programs.
- Assisted with case management and reimbursement issues.
- Illuminated and maximized the medical specialty service interactions.
- Formalized outcome protocols including medical outcomes, cost savings and computerization of outcomes protocols with PCI Net.
- Provided professional recruitment of physicians and allied health professionals.

Equipment Utilized:

- Varian 2100 CD Multi leaf collimation and IMRT
- Varian 2100-C Dual energy
- Varian Clinac 6/100
- Philips SL25 25 Mev Linear Accelerator with MLC
- Varian Simulator
- Odelplt Simulator

1989 - 1993:

Program Director: School of Radiation Therapy, El Paso Community College.

- Overall supervision of the Radiation Therapy program
- Prepared budget
- Developed, implemented and updated curriculum for the program
- Developed and organized the self-study for re-accreditation by C.A.H.E.A.
- Conducted Advisory Committee meetings
- Organized and designed a Competency-Based Clinical Education Teaching Program
- Conducted continuing education seminars for staff members

1985 – 1989:

Administrator, College Park Radiation Therapy Associates, College Park, Maryland.

- Basic function was to plan, organize, direct, and coordinate the functions of a free standing Radiation Oncology facility.
- Organization, staffing, budgeting, policy development and implementation, and coordination of activities
- Over all care of the cancer patients being treated at our facility.

1984 – 1985:

Senior Radiation Therapist, National Cancer Institute, Washington, DC

- Overall supervision of inter-operative radiation therapy.

1981 – 1984:

Radiation Therapy Technologist, Medical Center Hospital of Vermont.

- Assisted the physician with the total planning and care of the cancer patient.
- Operated high energy Varian X-ray equipment in the treatment of cancer.

Other Teaching Experience:

12/94 -12/95

- Lecturer for Pain Care Inc. Instructor of Oncology. Taught business practices to physicians, nurses and staff. Lectured to many medical groups on Health Services Management.

09/86 - 12/87

- Lecturer, George Washington University, Radiation Therapy / Business Administration

09/83 -12/84

- Lecturer, University of Vermont, Radiation Oncology

OTHER

Activities:

1981 - current

- Member ASRT

08/99 - 08/00

- PTA member, Frank Lamping Elementary School.

08/97 - 08/99

- PTA member, Dr. Green Elementary school.

05/97 - 08/99

- President of PTA, DR Green Elementary School

Licenses:

1981 - current

- Registered Technologist: The American Registry of Radiologic Technologist

Reg. # 182008

1989 - 1996
- Texas Department of Health

1989 - 1993
- New Mexico Department of Health

1985 - 1989
- Maryland Department of Health

1981 - 1985
- Vermont Department of Health

References furnished upon request.

Mr. Brooke Chapman R.T. (T) ARRT

7732 Tinted Mesa Court, Las Vegas, NV 89149

705-505-7567

bchapman1170@aol.com

Employment History

2017 to Present, College of Southern Nevada

- Instructor for Radiation Therapy Technology
- Clinical Coordinator
- Co-Chair IPE Committee
- Member of Huddle

2013 to 2017, 21st Century Oncology

Staff Radiation Therapist

- Treating cancer patients with therapeutic radiation using a variety of different delivery units
- Training CSN radiation therapy students as a clinical instruction mentor
- Administering student competency evaluations required for them to sit for the ARRT national licensing board examination
- Participating in the peer review process through the evaluation of patient medical records
- Designated OSHA safety officer for the Henderson and Fort Apache offices
- Provide patient education based on daily physical and mental assessment
- Interpreting, implementing and documenting patient treatment plans and procedures

2012 to 2013, Strimling Dermatology

Per Diem Radiation Therapist

- Treating skin cancer patients using a Xoft Axxent Electronic Brachytherapy System
- Manufacturers certificate of completed training for the Xoft radiation treatment system

2009 to 2012, Student at College of Southern Nevada

- Student clinical rotations at 21st Century Oncology and Healthcare Partners

2005 to 2009, RG Fine Interiors (Distinctive Décor)

Co-Owner & Designer

- Presenting custom interior design plans to individuals as well as groups
- Developing new and maintaining existing customer relationships
- Training new personnel in product lines, ordering, company procedures and standards
- Managing client expectations based on realistic budgets was crucial

Mr. Brooke Chapman R.T. (T) ARRT

7732 Tinted Mesa Court, Las Vegas, NV 89149

705-505-7567

bchapman1170@aol.com

- Made decisions daily on every aspect necessary to operate a sales based business
- Planned and coordinated schedules and staff for project installs, often on tight deadlines

2001 to 2005, Brandon Home Furnishings

Store Manager

- Directed all daily store operations from staff to inventory

Education

2017 to 2018 – Nevada State College

- Graduated with a BAS in Allied Health Science

2009 to 2012, College of Southern Nevada

- AAS in Radiation Therapy
- Graduated with high honors
- Dean's List for GPA
- Phi Theta Kappa Honor Society
- Letter of Commendation for compassionate patient care
- Certificate of Appreciation for my Technical Academy Career Day presentation

1992 to 1996, University of Nevada Las Vegas

- Attended School of Architecture Program

1989 to 1992, Atlantic Cape Community College

- AA in History
- Graduated with honors

Professional Qualifications

American Registry of Radiologic Technologists (ARRT), R.T. (T) Licensed Member

American Society of Radiologic Technologists (ASRT), Member

American Heart Association BLS for Healthcare Providers (CPR & AED), certified

Certificate of Training on the Xoft Axxent Electronic Brachytherapy unit

State Licenses held to perform radiation therapy: (No state license required in Nevada)

- California DOPH (CRT), Arizona MRTBE (CTT), Texas TDSH, Washington DOH (RT)

FOCUS ON CURRICULUM

Summary of Program Curriculum

The CSN Radiation Therapy Program is structured to comply with the American Society of Radiologic Technologists (ASRT) Professional Curriculum guidelines. Nineteen content categories are delineated in this most recent 2014 document. The BCC Radiation Therapy Program incorporates these nineteen categories into eleven RTT program courses.

ASRT Professional Curriculum Content
1. Clinical Practice
2. Ethics in Radiation Therapy Practice
3. Imaging and Processing in Radiation Oncology
4. Introductory Law in Radiation Therapy
5. Medical terminology
6. Operational Issues in Radiation Therapy
7. Orientation to Radiation Therapy
8. Pathophysiology
9. Principles and Practice of Radiation Therapy I
10. Principles and Practice of Radiation Therapy II
11. Quality Management
12. Radiation Biology
13. Radiation Physics
14. Radiation Protection
15. Radiation Therapy Patient Care
16. Radiation Therapy Physics
17. Research Methods and Information Literacy
18. Sectional Anatomy
19. Treatment Planning

CSN Radiation Therapy Program		
RTT	**Restricted Program Course**	**Credits**
First Semester (Fall)		
101	Introduction to Radiation Therapy	2
103	Introduction to Oncology	1
105	Principles & Practice of Radiation Therapy	2
125	Radiographic Process	2
150	Introduction to Radiation Physics	2
230	Clinical Applications I	1
Second Semester (Spring)		
102	Methodologies I	2
115	Caring for the Patient at the End of Life	1
210	Treatment Planning I	3
211	Radiographic Analysis	2
212	Cross Sectional Anatomy	2
220	Treatment Planning Lab	1

231	Clinical Applications II	1
Third Semester (Summer SU)		
232	Radiation Therapy Clinical Practicum III	3
Fourth Semester (Fall)		
202	Radiotherapy Physics and Quality Assurance	3
213	Radiation Oncology	3
214	Methodologies II	2
215	Treatment Planning II	3
219	Advanced Radiation Therapy Technique	2
233	Clinical Practicum IV	
Fifth Semester (Spring)		
180	Radiobiology	3
221	Ethics/Law/Professionalism	2
216	Methodologies III	2
229	Radiation Therapy Board Review	1
234	Clinical Practicum V	4

ASRT Professional Curriculum Content and Course Content Sequencing:

ASRT Radiation Therapy Professional Curriculum	**First Semester (Fall)**	**Second Semester (Spring)**	**Third Semester (Summer)**	**Forth Semester (Fall)**	**Fifth Semester (Spring)**
1. Clinical Practice	RDTP 230	RDTP 231	RDTP 232	RDTP233	RDTP 234
2. Ethics in Radiation Therapy Practice		RDTP 115	**Professional Development** linking cognitive, psychomotor and affective domains.		RDTP 221 RDTP 229
3. Imaging and Processing in Radiation Oncology	RDTP 125	RDTP 211			RDTP 229
4. Introductory Law in Radiation Therapy	RDTP 101				RDTP 221 RDTP 229
5. Medical Terminology	RDTP 103			RDTP 213	RDTP 229
6. Operational Issues in Radiation Therapy	RDTP 101	RDTP 102		RDTP 214	RDTP 229
7. Orientation to Radiation Therapy	RDTP 101				RDTP 229
8. Pathophysiology	RDTP 103			RDTP 213	RDTP 216 RDTP 229
9. Principles and Practice of Radiation Therapy I	RDTP 105				RDTP 229
10. Principles and Practice of Radiation Therapy II				RDTP 214	RDTP 229
11. Quality Management				RDTP 202	RDTP 229

1. Radiation Biology					RDTP 180 RDTP 229
2. Radiation Physics	RDTP 150				RDTP 229
3. Radiation Protection	RDTP 150			RDTP 202	RDTP 229
4. Radiation Therapy Patient Care		RDTP 102 RDTP 115		RDTP 214	RDTP 229
5. Radiation Therapy Physics				RDTP 202	RDTP 229
6. Research Methods and Information Literacy				RDTP 213 RDTP 219	RDTP 229
7. Sectional Anatomy		RDTP 212			RDTP 229
8. Treatment Planning		RDTP 210 RDTP 220		RDTP 215	RDTP 229

The program correlates curriculum content to comply with the American Registry of Radiologic Technologists (ARRT) National Registry Examination Content Specifications. Our most recent review and revision complies with the 2017 ARRT Content Specifications document.

The College of Southern Nevada Curriculum Map:

A.A.S in Radiation Therapy

Completion Date: *6/29/2018*

Program assessment data identifies in which courses the program learning outcomes are being taught and whether the program learning outcomes are introduced, reinforced or mastered.

Specific course content may be found in the course syllabi which are accessible through "Syllabi Central" http://bergen.edu/academics/syllabi-central

KEY: ***I*** *– Introduced* ***R*** *– Reinforced / Practiced* ***M*** *– Mastery at exit level*

	Program Learning Outcomes			
	First Semester / Fall			
Program Specific Required Courses (Do not include General Education courses or unrestricted electives.)	Radiation Therapy Department at CSN is to prepare students to successfully enter the workforce as competent, entry-level radiation therapists with demonstrated skill in the radiotherapy field.	Students will develop the necessary skills to achieve ARRT certification.	Students will develop the necessary skills to obtain employment within the radiation therapy field.	
RDTP-101 – Introduction to Radiation therapy	Introduced	Introduced	Introduced	
RDTP 103 – Introduction to Oncology	Introduced	Introduced	Introduced	

RDTP 105 – Principles and Practice of Radiation Therapy	Introduced	Introduced	Introduced	
RDTP 125 – Radiographic Process	Introduced	Introduced	Introduced	
RDTP 150 – Introduction to Radiotherapy Physics	Introduced	Introduced	Introduced	
RDTP 230 – Clinical Applications I	Introduced	Introduced	Introduced	
Program Specific Required Courses (Do not include General Education courses or unrestricted electives.)	**Program Learning Outcomes continued**			
	Second Semester / Spring			
	Radiation Therapy Department at CSN is to prepare students to successfully enter the workforce as competent, entry-level radiation therapists with demonstrated skill in the radiotherapy field.	Students will develop the necessary skills to achieve ARRT certification.	Students will develop the necessary skills to obtain employment within the radiation therapy field.	
RDTP 102 – Methodologies I	Reinforced	Reinforced – Written communication skills: Research paper	Reinforced	

RDTP 115 – Caring for the Patient at the End of Life	Introduced	Introduced	Introduced	
RDTP 210 – Treatment Planning I	Introduced	Introduced	Introduced	
RDTP 211 – Radiographic Analysis	Reinforced	Reinforced	Reinforced	
RDTP 212 – Cross Sectional Anatomy	Reinforced	Reinforced	Reinforced	
RDTP 220 – Treatment Planning Lab	Introduced	Introduced	Introduced	
RDTP 231 – Clinical Applications II	Reinforced	Reinforced	Reinforce	
Program Specific Required Courses (Do not include General Education courses or unrestricted electives.)	**Third (Summer) Semester**			
RDTP 232 Clinical Practicum III	Reinforced	Reinforced	Reinforced	

	Program Learning Outcomes Continued **Forth (Fall) Semester**

Program Specific Required Courses (Do not include General Education courses or unrestricted electives.)	Radiation Therapy Department at CSN is to prepare students to successfully enter the workforce as competent, entry-level radiation therapists with demonstrated skill in the radiotherapy field.	Students will develop the necessary skills to achieve ARRT certification.	Students will develop the necessary skills to obtain employment within the radiation therapy field.
RDTP 202 – Radiotherapy Physics and Quality Assurance	Mastery	Mastery	Mastery
RDTP 213 – Radiation Oncology	Mastery	Mastery (Clinical Case presentation to health science students)	Mastery
RDTP 214 – Methodologies II	Mastery Final Practical Examination	Mastery Final Practical Examination	Mastery Final Practical Examination
RDTP 215 – Treatment Planning II	Mastery Final Practical Examination	Mastery Final Practical Examination	Mastery Final Practical Examination
RDTP 219 – Advanced Radiation Therapy Techniques	Mastery Final Practical Examination Clinical Competencies	Mastery Final Practical Examination Clinical Competencies	Mastery Final Practical Examination Clinical Competencies
RDTP 233 – Clinical Practicum IV	Mastery of Clinical Competencies	Mastery of Clinical Competencies	Mastery of Clinical Competencies

	Program Learning Outcomes Continued **Fifth and Final (Spring) Semester**

Program Specific Required Courses (Do not include General Education courses or unrestricted electives.)	Radiation Therapy Department at CSN is to prepare students to successfully enter the workforce as competent, entry-level radiation therapists with demonstrated skill in the radiotherapy field.	Students will develop the necessary skills to achieve ARRT certification	Students will develop the necessary skills to obtain employment within the radiation therapy field.
RDTP 180 - Radiobiology	Mastery	Mastery	Mastery
RDTP 211 – Ethics/Law/Professionalism	Mastery	Mastery	Mastery
RDTP 216 – Methodologies III	Mastery	Mastery	Mastery
RDTP 229 – Board Review	Mastery	Mastery	Mastery
RDTP 234 – Clinical Practicum V	Mastery clinical evaluations	Mastery clinical evaluations	Mastery clinical evaluations

The program's twenty-one month academic AAS degree schedule offers its graduates a maximum of 82 transferrable college credits directly to Nevada State College in continuation of a B.A.S in Allied Health Sciences. Admission is in the Fall semester only and completion is at the end of the following fifth semester, spring. The program affords its graduates a maximum of 608 didactic hours, 112 laboratory hours and 1312 clinical hours. Upon successful completion of the program, the graduate is eligible for ARRT National Registration and to apply for any state licensure.

To be eligible for entrance into the program, the applicant must apply to the Limited Entry Department, complete the Health Orientation, program application, TEAS exam and six pre-requisite courses, and have a minimum GPA of 2.5 in these courses. The application deadline is June 1st of each year.

Advancement in this career may be achieved through on-the- job training in simulation and/or proton therapy. Academic achievements may be pursued in Dosimetry and/or Medical Physics. There are currently 19 JRCERT accredited Dosimetry training programs in the U.S. The closest proximity to NV is the University of California – Irving and Loma Linda University.

Curricular Issues

The Program curriculum is designed to educate the student into the practice of radiation therapy as defined by the American Society of Radiologic Technologists and The Joint Review Committee on Education in Radiologic Technology. Additionally, the program is designed to prepare the student to become an entrance level practitioner as defined by the American Registry of Radiologic Technologists.

The program has demonstrated continuous growth and achievement and has gained tremendous support from our clinical affiliates. The program has benefited tremendously from an on-campus laboratory (VERT) which has propelled the students learning and practical skills to a much higher level that previously demonstrated.

Pre-requisite Courses

Upon acceptance into the program, the applicant must have successfully completed the following courses:

BIO-189	Fundamentals of Life Science
BIO-223	Human Anatomy and Physiology I (Prerequisite: BIO-189)
BIO-224	Human Anatomy and Physiology II
MATH-216	Technical Mathematics
PHYS-185	Conceptual Physics (or EGG 131 Technical Physics-I)
ENG-101	English Composition I

In order to receive additional points towards acceptance, the students must complete 10 credits in the General Education courses*:

Fine Arts/Humanities	3 cr.
Human Relations	3 cr.
U.S. & Nevada Constitution	4 Cr.

Although all three of the above listed General Education courses may be taken concurrent with the Radiation Therapy Program, the number of general education courses completed is influential in the acceptance process. A Grade Point Average of at least 2.5 on a 4.0 scale in these general education courses is required for entrance. Successful completion of all of the above prerequisite courses is required for graduation from the program as mandated by the ARRT, JRCERT.
Applicants are permitted to transfer all general education required courses upon evaluation by a CSN College transfer counselor. There are no time restraints on transfer courses (except a 7 year rule on sciences) since the program is designed to attract students at all phases of career development. All program courses must be taken at the College of Southern Nevada.

To be eligible to take any of the national registration examinations offered by the American Registry of Radiologic Technologists, the applicant must possess an Associate level academic degree or higher from an accredited college or university. This policy was instituted by the ARRT in January, 2015

Clinical agencies mandate criminal history background checks for all individuals engaged in patient care, and all students must undergo criminal history background checks before admission may be offered. These checks are conducted by an external company, and the information is sent to the Dean of the Englestad School of Health Sciences. All background reports must be clear to continue the admission process. Any applicant with a background report that is NOT clear will not be eligible for admission. An initial drug screening test is also required.

All Radiation Therapy students, in compliance with the policies of the Division of Health Professions, must carry personal medical health insurance, professional liability insurance, and be certified in cardio-pulmonary resuscitation (CPR) by the American Heart Association (Healthcare Provider with AED) or the American Red Cross (Professional Rescue Certification). In addition, all students are required to complete health examination forms upon admission to the program and fulfill the requirement for a yearly Mantoux skin test for tuberculosis.

Follow-up Courses
The Radiation Therapy program offers the graduate an Associates of Applied Science degree with a maximum of 82 transferrable college credits (Nevada State College only). Based on the academic achievement already achieved, graduates are encouraged to continue their education. Most are seeking a baccalaureate level degree. This graduate is encouraged to pursue a field of interest, such as Dosimetry, Radiologic Science, Medical Imaging, Education, and/or Administration. Graduates who have already accomplished this level of academic achievement are encouraged to pursue a master's degree level of achievement in their field of interest. For the graduate who is seeking further specialization in Radiation Oncology, there are two (2) Post-

Baccalaureate Certificate programs and five (5) Master's Degree level JRCERT accredited Medical Dosimetry programs in the U.S.

Every ARRT registered Radiation Therapist is required to maintain twenty-four (24) continuing education credits in a two (2) year period. The program seeks to initiate an on-going seminar format program to provide the entire community of Radiologic Science professional with advances in the profession as well as continuing education credits. Evidence of interest exists in the community since the scope of treatment techniques and the variety of equipment options are inexhaustible while the opportunities for continuing education is limited. This type of endeavor encompasses an extensive commitment on the part of the organizers; therefore, no time for initiation has yet been established.

Scheduling

The Radiation Therapy Program is a full-time program with a well-organized schedule. The program is composed of a didactic, laboratory and clinical component as mandated by our accreditation agencies. Didactic courses are predominantly offered on Monday through Thursday during the daytime with an afternoon laboratory schedule. The laboratory is scheduled to avoid any conflict with the existing schedule at the participating clinical site. Most recently, Renown Medical Center, St. Mary's Hospital and Carson-Tahoe Radiation Oncology Centers are acknowledged for providing laboratory experiences to Northern Nevada satellite students. CSN offers its Radiation Therapy program to three students in the Reno area who have satisfied their application process through the Limited Entry Department and join in on classes through a multi-media telecommunication system at CSN and Truckee Meadows Community College.

The course content or Introduction to Radiation Physics (RDTP 150 – Fall semester) and Treatment Planning (RDTP 210, 220 & 215 – 1st year Spring & 2nd year semesters) encompasses approximately 28% of the ARRT National Registry Examination. Typically there courses are taught by a Medical Physicist but, unfortunately we do not have a physicist in Southern Nevada willing to teach these courses. Currently these courses are taught by the Program Director.

The clinical component of the program is on a daytime schedule. The student is required to attend clinic Monday - Friday during the Fall and Spring Semesters and Monday - Friday during the 10-week summer semester. This affords the graduate a maximum of 1312 clinical training hours.

It is the policy of the program to schedule every student at least one rotation through all of the clinical education sites. Each rotation encompasses approximately 48 clinical days in sixteen weeks. There is one rotation per semester for a total of five rotations during the academic program. This rigorous schedule is designed to provide the student with maximum exposure to various treatment techniques and equipment and to give every clinical site the opportunity to meet and evaluate the student for an entry level employment position. In compliance with JRCERT and ARRT Standards, the program limits required clinical assignments for students to not more than 8 hours per day and the total didactic and clinical involvement to not more than 40 hours per week.

Assessment
The Program Director updates course content to comply with the American Society of Radiologic Technologists Curriculum Outline. Additionally, the Program Director revises and updates the detailed curriculum grid provided by the Joint Review Committee on Education in Radiologic Technology, and has devised a grid to document compliance to the Content Specifications of the National Registration Examination offered by the American Registry of Radiologic Technologists. The Program Director shares this information for evaluation and revision with the Radiation Therapy Program Advisory Board. Program Effectiveness Data is made public on the Radiation Therapy website for view by all communities of interest, including the general public and prospective students.

The program employs a variety of assessment tools to provide all students an equal opportunity for success. Cognitive, psychomotor and affective domains are assessed. Written examinations are administered electronically through Canvas. Oral presentations, including case studies, are assigned throughout the program. Research assignments and professional journal critiques have been incorporated into course content to promote professional growth and development. Critical thinking is fostered and evaluated in the laboratory. Application of all cognitive, psychomotor and affective domains are practiced in a simulated laboratory environment before the student is eligible to demonstrate competence in a real patient clinical environment. A total of forty-eight clinical competency evaluations are required by the ARRT before the graduate is eligible to take the national registration examination.

Innovations or Changes in Last three Years
The program has incorporated the use of technology through Canvas tests, examinations, homework assignments and quizzes. An active reading approach has been employed to improve assimilation of course content. Over the past five years, the program has moved to emphasize critical thinking skills in the laboratory environment.

During the fifth semester of the program, the students prepare for the national ARRT registry exam. Mock registry exams have been collected from various sources and have been converted into an electronic format for administration through Canvas. Students are allotted time to take a variety of practice exams on a weekly schedule.

Due to the small size of this specialized profession, outside resources are limited. The program utilizes the three most widely used review books on the market today.

1. Comprehensive Review Guide for the Radiation Therapy Examination
2. Radiation Therapy Study Guide and Exam Review
3. Radiation Therapy Essentials – Board Preparation Tool

Innovations that foster student success are supported by the college community. The Career and Workforce Development Center provides our students with a resume writing and interview technique workshop. The Library provides a Research Methodology Workshop specifically designed for medical professionals. The tutoring center accommodates our students by providing mathematical and physics tutoring for radiation therapy students. Clinical Laboratory Sciences program provides our students with venipuncture competency training. The copy center provides color printing for patient treatment plans. This teaching tool exposes the student to actual patient treatment plans, in accordance with HIPPA guidelines, for dosimetric assessment and evaluation in a laboratory environment. Our HIT program offers our students the opportunity to learn more about electronic medical records as well as CTP (ICD-10 coding system).

FOCUS ON SUPPORT

Technology

The one story, Claude E. Howard building, which opened in August 2016 houses six of school's growing health professions programs. The Radiation Therapy Program was afforded a dedicated classroom equipped with a Smart Board and fifteen computer internet access terminals and one teacher workstation. The computer is equipped with Microsoft office for PowerPoint presentations, Excel spreadsheets and multimedia needs. The two separate laboratories are equipped with a Varian Simulator machine, patient immobilization devices, vital sign equipment and a Virtual Environment in Radiation Therapy (VERT) machine. The VERT machine is the flight simulator for radiation therapy, which allow our students to practice on virtual patients prior to ever entering the radiation oncology center.

The program director and clinical coordinators have an office equipped with two computers. In addition to Microsoft Office, the program director has access to WebXtender, Datatel, Respondus, Snagit and Adobe Acrobat Pro. All quizzes, tests, and registry preparatory examinations, and PowerPoints prepared by the program are administered on Canvas.

The College of Southern Nevada's Radiation Therapy Program offers its students a diverse clinical learning environment. We have seven clinical education centers, four of which are equipped with state-of-the-art linear accelerators and employ cutting-edge treatment techniques. Two of our clinical sites provide a less technologically advanced experience. Overall, the clinical experience is comprehensive to prepare the graduate for entrance level employment.

Radiation Therapy is a highly sophisticated and technologically advanced field of study. Students learn to operate machines, called linear accelerators, that direct high-energy x rays to specific cancer cells in a patient's body to shrink or remove them. Computer based technology that the student is expected to learn at the clinical site includes Intensity Modulated Radiation

Therapy, Vision RT, Image Guided Radiation Therapy, Calipso, Image Registration, CT simulation with a virtual simulation workstation, and Eclipse Treatment Planning.

Facilities and Equipment

A sample of the equipment that has been purchased with the use of the Perkin's Grant includes a RANDO anatomically accurate phantom, a breast board, a wing board, TIMO head holders, prone breast board, thermoplastic immobilization devices and the VERT system. The students have the ability to practice on state-of-the-art equipment that mimic or expand beyond what is currently used in many of our clinical education centers.

The program offers the student a four-hour per week laboratory in the fall and spring semesters at CSN preparing the student for their first clinical rotation the second half of the spring semester of their first year. The students then transform out to the clinical sites for seven weeks, four hours per week. The summer session allows the students the opportunity to work 8 hours per day for the entire ten week session allowing them to expand into all areas of patient care. (continuum of care). There the student experiences instruction on state-of-the-art radiation therapy equipment including a Varian True Beam linear accelerator and GE simulator with a virtual workstation. Instruction is provided by experienced ARRT registered Radiation Therapists, certified Medical Dosimetrist and certified Medical Physicist

Learning Resources

The CSN library continuously updates scholarly journals, books and media resources to support the Radiation Therapy Curriculum. A list of holdings is compared to the ASRT Radiation Therapy Resource list. Library personnel and the program director work collaboratively to have all required texts and supplemental resources available to the students. The college has over 40 books and multimedia videos relevant to the study of radiation therapy both in the library as well as in a secure location within the radiation therapy department. Through the library, the students have access to two of the most useful journals for the profession.

Radiation Therapist is the most widely recognized scholarly journal of this profession. It offers the student, the graduate, and our faculty access to directed reading articles for the acquisition of continuing education credits. Students are required to become ASRT student members during their first semester to take advantage of all of the recourses available through our society.

In addition to student resources, the department has purchased through Perkin's and Anatomage Table for use of sectional anatomy used in weekly classroom instruction. *Anatomage* is a virtual cadaver for students to refresh on human anatomy and includes images of gross, cross-sectional and radiographic anatomy. Images can be viewed with and without labels which supports classroom instruction and testing. Self-tests and descriptive materials are included in the Anatomage package.

The Center for Academic and Professional Excellence (CAPE) provides a faculty support team to advise and direct faculty who wish to develop best practices in the instructional use of technology. The Center offers an array of workshops to faculty and staff to learn new technologies. Scheduling information and registration are continuously provided through the CSN e-mail system, Outlook, and the CSN website. Faculty and staff are encouraged to attend CAPE workshops every semester.

In the fall semester of the program every Radiation Therapy student takes an in-class electronic mathematic assessment test. The test is designed to be a review of college algebra and pre-calculus mathematics. A grade below 75% warrant the program to notify the student and require a remedial mathematics review. This may be accomplished through the CSN Tutoring Center. The tutoring center offers this Radiation Therapy Math review at no cost to the student. Additionally, in 2018, the program will to retest the students at the same level of difficulty, in the Spring semester. A score under 75% will require remediation.

Marketing and Public Relations

The College of Southern Nevada's Radiation Therapy Program web site is accessible to the general public and is the main marketing tool to reach potential students. That website is https://www.csn.edu/health

The program presents in-person Radiation Therapy Information Sessions up to six times per academic year and at various high schools and technical schools throughout southern Nevada.

Support Services

Other support services include the Copy Center and the Information Technology Help Desk. The copy center is proficient in the copying and production of many pieces of educational materials for the program including educational treatment plans in color and program laboratory manuals. The IT Help Desk assists in all computer malfunctions in the classroom and the program office.

The program works closely with the Institute for Career Development for a Resume Writing and Interview Technique Workshop, the Tutoring Center to ensure that all students of the program would have the fundamental math skills needed for the physics and dosimetry aspect of the curriculum as well as for preparation for the registry. The students also utilize the Library for resources for a Research Methodology presentation. These changes demonstrate the program's commitment to continuous quality improvement.

Resources, Budget

The college provides an adequate budget for the required full-time program director and clinical director and two full time Administrative Assistants.
Other budgetary expenses include office and classroom supplies, color printing through the copy center and laboratory materials for every student.

The program director and clinical director is granted up to $1200.00 compensation for attending American Society of Therapeutic Radiation Oncology (ASTRO) meetings. These annual meetings are located at various locations throughout the U.S.; however, their scope is world-wide. These meeting provide the program director and clinical director with current trends in practice and education as well as approximately 18 continuing education credits.

FOCUS ON COMMUNITY

Community Groups

The program has sent paper postal mail surveys to employers and graduates. Due to the lack of response, in 2017 the program is looking into Survey Monkey to pole graduates 12 month after graduation and in 18 months to pole employers. This will increase the Radiation Therapy budget so additional funds will need to be requested.

Survey Monkey Graduate Sample Survey:

Dear Radiation Therapist,
Please complete the following job placement questioner. It should take no more than two minutes of your time. Thank you for your compliance.

1. Are you currently employed in the practice of radiation therapy?
2. If you are not employed in the practice of radiation therapy, are you actively seeking employment?
3. If you are actively seeking employment in the practice of radiation therapy; however, you are not employed, please check any or all of the following situations if applicable to you.
    a. I am unwilling to seek employment that requires relocation
    b. I am unwilling to accept employment due to salary or hours
    c. I am on active military duty
    d. I am continuing my education

Survey Monkey Employer Sample Survey: (this survey employs a 5 point Likert scale)

Dear Employer,
Please complete the following employer questioner if you have hired a College of Southern Nevada Radiation Therapy Program graduate within the past six months. It should take no more than two minutes of your time. Thank you for your compliance.

1. Employee demonstrates understanding of concepts related to anatomy, physiology, pathology, and dose to critical structures.
2. Employee recognizes complications and side-effects commonly associated with each treatment procedure.

3. Employee demonstrates competence performing activities such as verifying treatment parameters, setting-up the treatment unit, positioning the patient, monitoring the patient during treatment delivery, and documenting treatment delivery.

4. Employee demonstrates ongoing sensitivity to and compassion for each patient's physical and emotional well-being, interacts with members of the radiation therapy treatment team in a positive and productive manner, and maintains high ethical standards.

Community Issues Related to Program

Job Placement Rate (JPR) – is defined as the number of graduates employed in radiation therapy within 12 months of graduation compared to the number of graduates actively seeking employment in radiation therapy. Our current job placement rate is 93.3%

The program expects employment opportunities to increase in Nevada over the next two years. This will be particularly advantageous to our graduates who are not able to relocate or travel extensively for employment. Beginning in 2019, additional cancer centers will be opening up or preexisting cancer centers will be adding machines to their facility, which will create more jobs in the field of Radiation Therapy.

The following information is provided by the United States Department of Labor – Bureau of Labor Statistics / Occupational Outlook Handbook.

Quick Facts: Radiation Therapists	
2016 Median Pay	$80,570 per year $38.75 per hour
Typical Entry-Level Education	Associate's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2014	19,100
Job Outlook, 2014-24	13% (Much faster than average)
Employment Change, 2014-24	2,400

Job Outlook

Employment of radiation therapists is projected to grow 13 percent from 2016 to 2026, much faster than the average for all occupations. The risk of cancer increases as people age, so an aging population may increase demand for radiation therapists.

Radiation Therapist is listed as one of the highest-paying healthcare jobs in comparison to educational investment.

Occupation	**Entry Level Education**	**2016 Median Pay**
Respiratory Therapist	Associate	$59,710
Radiographer and MRI Technologist	Associate	$60,070
Diagnostic Medical Sonographer	Associate	$65,620
Dental Hygienist	Associate	$74,070
Nuclear Medicine Technologist	Associate	$75,660
Radiation Therapist	**Associate**	**$80,510**
Dietician/Nutritionist	Bachelors	$59,410
Registered Nurse	Bachelors	$70,000
Speech Pathologist	Masters	$76,610
Occupational Therapist	Masters	$83,200
***Dosimetrist**	**5-6 Years Higher Education**	**$98.500**
Chiropractor	Doctorate	$68,640
Audiologist	Doctorate	$75,920
Physical Therapist	Doctorate	$86,850

* Dosimetry training offers the Radiation Therapist an opportunity for professional growth.

Financial Aid

Financial Aid, grants, student or parent loans may be used to offset educational expenses. Pending Financial Aid will be reflected on student invoices. The Actual Financial Aid award may differ from "Pending" Financial Aid.

Students are responsible for any and all charges not covered by the actual Financial Aid award.

Scholarship

The College of Southern Nevada Foundation office offers all CSN students access to a variety of academic achievement scholarships. The Englestad School of Health Sciences also offers an Englestad scholarship to both first and second year students.

The College of Southern Nevada's Radiation Therapy Program is competitive in cost to other Associate of Science and Bachelor of Science Level College Programs. The documented $7,790 includes tuition and fees, books and supplies, and uniform allotment.

Program	Length and Award	Approximate Cost per year (Resident)
Nevada		
College of Southern Nevada	A.A.S	$7,790
California		
City of Hope	12 month CERT	$15,000
Loma Linda University	21 month A.S.	$17,575
National University	24 month. A.S	$13,517
Utah		
Weber State University	48 month B.S.	$46,720

External Requirements or Considerations Program Accreditations:

Northwest Commission on Colleges and Universities (NWCCU)
8060 165th Avenue NE
Suite 100
Redmond, WA 98052

Phone: 425-558-4224
Fax: 425-376-0596

American Registry of Radiologic Technologists Professional (ARRT)

Organizations:

American Society of Radiologic Technologists Licensures:

Advisory Boards

The Radiation Therapy Program Advisory Board meets 3 times annually. The board consists of a radiation oncologist, medical physicist, program director, clinical director, and radiation therapists from our clinical education affiliation sites and a current student representative. The attendants review the previous meeting minutes, discusses program updates, clinical site updates, student progress, curriculum updates, and the assessment process. Additionally, the board reviews the assessment plan, including the mission statement and program goals.

Members:

Paul Treadwell, M.D.
Medical Director
21st Century Oncology
2851 North Tenaya, Ste 100
Las Vegas, NV 89128
ptreadwell@rtsx.com

Karen Murphy, B.S. R.T.(R)(T)
Healthcare Partners
8285 W Arby Ave., Ste. 100A
Las Vegas, NV 89113
treber@hcpnv.com

Chuck Spencer
Radiation Physicist
8285 W. Arby Avenue, Suite 100A
Las Vegas, NV 89113
cspencer@hcpnv.com

Andrew Barton, R.R (T)
Healthcare Partners
8285 W. Arby Avenue, Suite 100A
Las Vegas, NV 89113
abarton@hcpnv.com

Albert Vargas, R.T.(T)
21st Century Oncology
2851 North Tenaya
Las Vegas, NV 89128
Albert.vargas@21co.com

Jaun Miranda, Ph.D
21st Century Oncology
3006 Maryland Parkway, Suite 100
Las Vegas, NV 89109
Jaun.miranda@21co.com

Tatjana Eichler
21st Century Oncology
2851 North Tenaya
Las Vegas, NV 89128
Tatjana.eichler@21co.com

Amanda Boyson
21st Century Oncology
52 N. Pecos Rd.
Henderson, NV. 89074
Amanda.solina@21co.com

Alma Pineda (General Public proxy)
Administrative Assistant III
Dental Sciences, Diagnostic Evaluation & Rehabilitation Services
College of Southern Nevada
6375 West Charleston Boulevard
Las Vegas, NV 89146
Alma.pineda@csn.edu

Brooke Chapman
Radiation Therapy Clinical Supervisor
College of Southern Nevada
6375 West Charleston Boulevard
Las Vegas, NV 89146
Brooke.chapman@csn.edu

Jim Godin
Department Chair / Program Director
College of Southern Nevada
6375 West Charleston Boulevard
Las Vegas, NV 89146
Jim.godin@csn.edu

Janice Glasper
Interim Dean | Engelstad School of Health Sciences
College of Southern Nevada
6375 West Charleston Boulevard
Las Vegas, NV 89146
Janice.glasper@csn.edu

SUMMARY

Program Achievements and Progress

1.The on-line Canvas system is employed by all faculty to provide the student with PowerPoint presentations as well as supplemental reading material.
2.The program employs the Canvas on-line system to administer homework, quizzes, test, and exams, including exit/terminal exams.
3.The program instituted an in-class registry review in preparation for the terminal exit exams and the national registry exam.
4.The program collaborates with the Career Development Office to offer the student a Resume Writing and Interview Technique Workshop.
5.The program collaborates with the Library to provide the student with a Research Methodology Presentation.
6.The program collaborates with the CLS Department to provide the student with Venipuncture competency training.
7.The program collaborates with the Tutoring Center to provide the Radiation Therapy student with Math tutoring relevant to Radiation Therapy dosimetry and dose calculations.
8.The program introduced a math assessment test to be administered in the beginning of the Fall and Spring semesters. These tests are used to increase the student awareness of their level of mathematical knowledge and to provide the student the opportunity for mathematical tutoring to support success in the program.
9.The program collaborates with Q-Fix, an immobilization device company, to provide the student with an entire one-day immobilization device laboratory focusing on hands-on experience in the fabrication of immobilization devices essential to the practice of radiation therapy.
10.The program collaborates with the American Heart Association to provide the student with CPR training and certification at low cost to the student.
11.The program provides career development and employment opportunities through field trips. Field trips include ASTRO Annual meeting, Loma Linda Proton Therapy Center, Varian Medical Systems, Las Vegas office.

1.Critical thinking skills have been heightened in multiple content areas of the program. With our on-campus laboratory

a.The RDTP 230 and RDTP 231 Clinical Applications lab experience has incorporated patient set-ups, machine functions, immobilization techniques, and triangulation and treatment field delineations. At the end of the lab experiences, student is required to accurately create radiation therapy portals on the virtual simulation workstation.

The RDTP final exam incorporates a real patient set-up with multiple challenges.

b.In the RDTP 214 Methodologies II final mastery exam, a team of two students are expected to complete the entire treatment process on a patient. The patients are students from other health programs who volunteer to be patients for that day. The RDTP students will perform the entire treatment set up from identifying the patient to review of short and long term side effects. This exam is the final step to completing the required competencies from the ARRT.

c.Treatment Concept Case Studies have been created and incorporated into the RDTP 219 class. Clinical and didactic competencies have been correlated within this course They require the student to review the patient chart for each of the 18 required treatment competencies and correlate history and physical, stage of disease, grade of disease, laboratory reports, pathology reports and to complete a differential diagnosis to determine a probable long-term prognosis.

2.Active reading strategies were incorporated in RDTP 213 Clinical Oncology, with a patient case study presentation assignment. In RDTP 229 Board Review, the student is given the opportunity to complete five (5) mock board review examinations using the ARRT content specifications for the registry exam in Radiation Therapy.

3.Three additional clinical education center has been added to our existing five sites. These three centers are locate in the Reno area and will serve as training sites for our TMCC students the program continues to seek out additional clinical education centers to better accommodate the student who resides outside of Clark County.

4.The program has collaborated with the CSN Englestad Foundation to provide scholarship opportunity for students of the CSN Radiation Therapy Program.

5.From 2016 to present, the program has achieved a 91.33% ARRT National Registry Exam Pass Rate.

The following chart tracks the progress made in the development of this program since its inception in 2004.

2008	50%	88%	74%	82.3%	8
2009	64%	87.6%	76.7%	82.2%	11
2010	70%	85.2%	78.3%	82.0%	10
2011	90%	90.3%	82.3%	83.2%	10
2012	90%	91.4%	80.3%	83.5%	10
2013	80%	90.2%	78.8%	82.7%	10
2014	100%	90.6%	85.5%	82.9%	11
2015	86%	86.9%	84.7%	82.5%	7
2016	83%	88.4%	81.8%	82.5%	6
2017	91%	88.0%	82.7%	82.4%	11
2018	100%	86.5%	85%	82.1%	6

Mission/Goals/Objectives

•Annual Graduate survey data shows 93% agreement that the program Mission Statement is demonstrated by the program and 100% agreement that the Program Goals are demonstrated by the program.

Strengths

 Three-year data documents:

- ✓ Program Retention Rate: 87.8%
- ✓ Program Job Placement Rate: 93.3%
- ✓ ARRT National Credentialing Examination First Attempt Pass Rate: 91.3%
- ✓ The CSN Radiation Therapy Program is the only Radiation Therapy program in the state of Nevada.

•The broad spectrum of equipment and treatment techniques provided at our campus and clinical education centers equips our graduates with a diverse clinical experience and fosters adaptable personality traits to optimize employment opportunity potential.

•Financial assistance through financial aid and grant opportunity is available for eligible students. Scholarship opportunities are available to CSN Radiation Therapy students through the Englestad Foundation.

•The program is honored to represent CSN as a program committed to excellence and continuously striving for perfection. The program is grateful for the continuous support from CSN Administration.

•The program is proud to have faculty who are willing to help students who are having difficulty with didactic and/or clinical instruction. Our extraordinary faculty share the common goal of graduating the best Radiation Therapists in the profession.

•The program is grateful for the support, confidence and effort demonstrated by the entire community and, in particular, our clinical education centers. Our clinical education centers offer training on state-of-the-art equipment. Communication between the college and the clinical education center is a key strength. All of our clinical sites currently employ at least one and up to 10 Radiation Therapy graduates. This is a significant percentage of a staff that ranges from three to twelve therapists.

•The program is grateful to document the success of our graduates. The majority of our graduates are employed throughout Nevada, California, Washington, Texas and Arizona additionally, we have graduates who have achieved chief and senior therapist positions. Many of our graduates have continued their education to achieve a B.S. Degree, some in Medical Dosimetry.

Challenges

Program capacity:

•The program capacity is highly correlated to clinical education center capacity. The program determines clinical capacity based on clinical site preference. Together, our clinical education centers can accommodate nine to ten students per year; however, that number is variable. Circumstances that may result in a decreased student capacity include an unexpected decrease in the patient load at the clinical education center, a change in administration and workforce at the site and the installation of new equipment and the training of staff.

•The required prerequisite entrance requirements may delay entrance of the applicant into the program; however, this time interval also allows the applicant to discern this career choice, hence, the program holds a 87.8% completion rate.

Recommendations for Change

1.Transition to an electronic tracking system for the clinical education component of the program. Trajecsys Corporation offers a comprehensive system for clinical recordkeeping for health education. https://www.trajecsys.com/Default.aspx

2.Extending grant and/or scholarship opportunities for students residing outside of Clark County.

3.Acquisition of additional clinical education centers to accommodate students commuting from outside of Clark County. The addition of our Reno campus (TMCC) has opened up three additional treatment centers for training. We are also looking into affiliating with Northern Arizona University to see if we can expand our program by another two students. We currently have clinical affiliates in Flagstaff as well as Sedona.

4.The Radiation Oncology community would benefit from an opportunity to network and acquire continuing education credits through a symposium format. The CSN Radiation Therapy Program aspires to initiate an annual on-campus Radiation Therapy Symposium that would be open to all Radiologic Science professionals.

ACTION PLAN

1) Goal: Acquisition of additional clinical education centers

a)Objective: Provide clinical education centers at locations to better accommodate out of county students.

i)Timeframe: Ongoing

ii)Responsible Party(ies): Clinical Education Site / RTT Program Director / CSN Health

Professions Contract Specialist / CSN Administration iii) Resource Implications: adjunct faculty – one to three per clinical education site.

b)Objective: Offer the student additional clinical experience and the opportunity to network for post-graduation employment i) Timeframe: Ongoing

ii) Responsible Party(ies): Clinical Education Site / RTT Program Director / CSN Limited Entry Department / CSN Administration iii) Resource Implications: adjunct faculty – one to three per clinical education site.

2) Goal: Implement a Continuing Education Symposium for all Radiologic Science Professionals

a)Objective: Expose the Radiation Oncology Community to new and innovative technologies that they may not have the opportunity to experience in their place of employment, (VERT system)

i)Timeframe: Ongoing

ii)Responsible Party(ies): Program Director with input from faculty iii) Resource Implications: Accommodations for a Saturday Symposium

b)Objective: Provide the Radiologic Science professional with an opportunity to acquire required continuing education credits. i) Timeframe: Ongoing

ii) Responsible Party(ies): Program Director with input from faculty iii) Resource Implications: Accommodations for a Saturday Symposium