

MTC Radiation Therapy Program Assessment Plan

Goal 1: Students will demonstrate competency in the clinical setting.

| Outcome | Assessment Tool | Benchmark | Timeframe | Person | Results | Analysis | Action Plan |
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| 1a. Students will demonstrate competency in simulation. | Simulation Competency Evaluation Form | ≥ 80% of competencies are passed by all students on the first attempt | Annually in the spring semester | Marla Smith | 2017-100% 2018-100% 2019-100% 2020-100% 2021-100% | 100% of students 2017-2021 met the benchmark. The sample size in 2020 was small due to the Covid pandemic. | Students are demonstrating a high level of competency for all simulation learning outcomes. The simulation competency form is under review by the clinical handbook committee. |
| | Simulation Competency Evaluation Form | ≥ 90% of competencies are passed by all students on the first attempt | Annually in the summer semester | Marla Smith | 2017-100% 2018-100% 2019-100% 2020-100% 2021-100% | 100% of students 2017-2021 met the benchmark | Students are demonstrating a high level of competency for all simulation learning outcomes. The simulation competency form is under review by the clinical handbook committee. |
| 1b. Students will demonstrate competency in treatment delivery. | Treatment Procedure Competency Evaluation | ≥ 90% of competencies are passed by all students on the first attempt | Annually in the summer semester | Marla Smith | 2017-98% 2018-100% 2019-100% 2020-100% 2021-100% | 100% of students passed the treatment procedure competencies on first attempt. | Students are demonstrating a high level of treatment procedure competency. The treatment procedure |

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| | | | | | | | competency form is under review by the clinical handbook committee. |
| | <p>Clinical Evaluation treatment machine (Items 21-35) 21-25 Patient Alignment skills 26-35 Attention to clinical detail.</p> <ol style="list-style-type: none"> 21. Refers to instructions and photographs 22. Assures that the patient is correctly located on couch prior to beginning setup. 23. Assists the therapist in positioning of the patient according to the treatment plan, manipulating the patient with minimal discomfort. 24. Sets the correct treatment distance. 25. Makes necessary shifts and adjustments as indicated in the patient chart. 26. Is able to find all pertinent treatment information in the patient's chart. 27. Assures treatment chart is up to date (photographs, notes etc.). 28. Selects the correct immobilization device when applicable. 29. Selects and properly positions the correct beam modifier when applicable. 30. Recognizes treatment changes by looking in the chart. 31. Routinely reviews the physician's prescription. 32. Verifies treatment parameters are properly downloaded or sets correct field size, correct collimator angle, gantry angle. 33. Utilizes record and verify system correctly. 34. Follows imaging and SSD verification policies. 35. Monitors patient visually. | ≥ 3 (on a scale of 1 to 4) average on students' final evaluation | Annually- August | Marla Smith | 2017-3.9 2018- 3.75 2019-3.8 2020-3.9 2021- 3.95 | <p>Patient alignment skills (Items 21-25) Seven students were at the "competent" level. Three students were at "meets clinical standards one on item 21, two on item 25.</p> <p>Attention to clinical detail (Items 26-35) Nine students were at the "competent level." one student scored "needs improvement" on item 26 and meets clinical standards on items 30&31.</p> | <p>The program continues to analyze data for trends in student competency in treatment delivery. At this time, students are demonstrating competency in patient alignment skills and attention to clinical detail at a level of or above the designated benchmark.</p> <p>The treatment machine evaluation tool is under review by the clinical handbook committee.</p> |
| 1c. Students demonstrates principles of radiation protection. | Treatment Procedure Competency Evaluation form | ≥ 90% "yes" response on first attempt | Annually- August | Marla Smith | 2017-100% 2018- 100% 2019-100% 2020-100% 2021- 100% | 100% of students demonstrated radiation safety practices during treatment | Students are demonstrating radiation safety during treatment |

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| | (Item 16) 16. Demonstrated radiation safety practices | | | | | procedure competencies. | procedure competencies. The treatment procedure competency form is under review by the clinical handbook committee. |
| | Simulation Competency Evaluation (Item 13) 13. Demonstrates radiation safety practices. | ≥ 90% "yes" on first attempt | Annually-August | Marla Smith | 2017- 100% 2018-100% 2019-100% 2020-100% 2021- 100% | 100% of students demonstrated radiation safety practices during simulation procedure competencies. | Students are demonstrating radiation safety during simulation procedures. The simulation procedure competency form is under review by the clinical handbook committee. |

Goal 2: Students will think critically.

| Outcome | Assessment Tool | Benchmark | Timeframe | Person | Results | Analysis | Action Plan |
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| 2a. Students demonstrate good judgment and decision-making. | Professional Development Evaluation (Item 10) Problem Solving/Critical Thinking Category. 1 - 2. Requires assistance, unable to adapt to a new situation 3 - 4 with time is able to adapt to a new situation 5 Able to solve unusual situations and begin task | ≥ 3.5 (on a scale of 1 to 5) | Annually-August | Marla Smith | 2017-4.48 2018-4.4 2019-4.4 2020-5.0 2021- 4.6 | Seven students scored 5/5 and three students scored 4/5. Overall students are doing well. | The program continues to analyze critical thinking data for trends. Currently, students are demonstrating strong critical thinking skills. |

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| | <p>Scripting and Thermoplastic Construction Simulation Lab (Item 7)</p> <p>7.The student selected the appropriate headrest to accommodate patient comfort and physician orders.</p> | 90% of students will select the appropriate headrest | Annually – fall semester | Paula Freeman | <p>2017-No data</p> <p>2018-100%</p> <p>2019-100%</p> <p>2020-100%</p> <p>2021- not assessed</p> | <p>2017 -tool not used in the assessment plan in 2017.</p> <p>2021- The lab was not done for the 2021 cohort due to Covid 19 social distancing and contact requirements.</p> | <p>The use of this tool is relatively new (2018-2021), only three years of data is available for review due to the pandemic in 2021 the lab was not completed.</p> <p>The program continues to analyze data for trends. Currently, students are demonstrating a high level of critical thinking skills when selecting the appropriate headrest in a lab situation.</p> |
| 2b. Students recognize discrepancies and develop solutions to clinical situations. | <p>Clinical Evaluation Treatment Machine (Items 15 & 20) Patient Contact and Communication</p> <p>15. Recognizes patient's physical limitations and makes adjustments accordingly.</p> <p>20. Recognizes the need for the patient to be referred to the physician or nurse for abnormal treatment reactions</p> | ≥ 3 (on a scale of 1 to 4) average on students' final evaluation | Annually-August | Marla Smith | <p>2017-3.9</p> <p>2018- 3.8</p> <p>2019-3.67</p> <p>2020- 4.0</p> <p>2021- 3.95</p> | Scores over the past five years continue to be above the benchmark. In fact, the scores from 2020 and 2021 indicate a rise in the trend. | <p>The program continues to analyze data for trends.</p> <p>The treatment machine evaluation tool is under review by the clinical handbook committee.</p> |
| | <p>Clinical Evaluation Simulation (Items 15 & 20) - Patient Contact and Communication</p> <p>15. Recognizes patient's physical limitations and makes adjustments accordingly.</p> | ≥ 3 (on a scale of 1 to 4) average on students' final evaluation | Annually-August | Marla Smith | <p>2017-3.9</p> <p>2018- 4.0</p> <p>2019-3.7</p> <p>2020-4.0</p> <p>2021- 3.95</p> | Scores over the past five years continue to be above the benchmark. | <p>The program continues to analyze data for trends.</p> <p>The simulation evaluation tool is</p> |

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| | 20. Explains the procedure to the patient answering questions accurately, referring the patient appropriately for additional information when necessary. | | | | | | | under review by the clinical handbook committee. |
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Goal 3: Students will communicate effectively.

| Outcome | Assessment Tool | Benchmark | Timeframe | Person | Results | Analysis | Action Plan |
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| 3a. Students demonstrate effective written communication skills. | MTC Writing Rubric on RTH 205 final project | ≥ 90% (5-year class average) | Annually – December | Paula Freeman | New tool, implementation fall 2021(2022 cohort). | | |
| | Writing unit grade for Modern Radiation Therapy Research (RTH 211) | ≥ 90% (5-year class average) | Annually - August | Paula Freeman | 2017-88% 2018- 88.81 2019-89.70% 2020-89.0% 2021- 90.15 | The five-year average is increasing. Curriculum adjustments were made during the 2020-21 school year: Students were assigned to peer review groups; an additional peer review assignment was added, and students created an annotated bibliography to evaluate their own resources. In addition, weekly self-evaluations were completed by the students | We will continue to make writing an emphasis in the program This is evident by the addition of the new tool and changes to RTH 211. The program will continue to analyze data for trends in written communication skills. |
| 3b. Students demonstrate effective oral communication skills. | Professional Development Evaluation (Item 12) Communication 1-2 Lacks ability to communicate ideas effectively, may avoid communication in difficult situations | ≥ 3.5 (on a scale of 1 to 5) | Annually - August | Marla Smith | 2017-4.42 2018- 4.75 2019- 4.70 2020-5.0 2021- 4.7 | Eight students scored 5/5, one student scored 4/5, and one 3/5. Overall students are doing well. | The program continues to analyze communication data for trends. Currently, students are demonstrating strong oral communication skills in the clinical setting. |

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| | <p>3-4 sufficient ability but may need prompting in difficult situations 5 always articulate and clearly communicates with both patients and staff</p> | | | | | | |
| | <p>Scripting and Thermoplastic Construction Simulation Lab (Item 11) Dialog between the patient and student was professional, informative and respectful. Patient questions were answered appropriately.</p> | <p>≥ 8.5 (on a scale of 1 to 10) class average</p> | <p>Annually – Fall semester</p> | <p>Paula Freeman</p> | <p>2017- No data 2018- 10.0 2019- 9.8 2020- 10.0 2021- Not assessed</p> <p>2021- The lab was not done for the 2021 cohort due to Covid 19 social distancing and contact requirements.</p> | <p>2017 -tool not used in the assessment plan in 2017.</p> <p>2021- The lab was not done for the 2021 cohort due to Covid 19 social distancing and contact requirements.</p> | <p>The use of this tool is relatively new (2018-2021), only three years of data is available for review. Due to the pandemic in 2021 the lab was not completed.</p> <p>The program continues to analyze data for trends. Currently, students are demonstrating a high level of demonstrating oral communication in the lab setting.</p> |

Goal 4: Students will demonstrate professional attitudes, behaviors, growth and ethics.

| Outcome | Assessment Tool | Benchmark | Timeframe | Person | Results | Analysis | Action Plan |
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| 4a. Students conduct themselves in an ethical and professional manner. | HIPAA Training.com Module Final Exam | ≥95% class average | Annually – May | Paula Freeman | 2017-97% 2018-95.8% 2019-94.5% 2020-94.3% 2021-97.9% | 7 students scored 100% 3 students scored 93% | Results confirmed the HIPAA training program's efficacy training. |
| | MTC Work Ethic Rubric total score | ≥ 90 (out of 100) class average score | Annually – May | Paula Freeman/ Marla Smith | 2017-93.8% 2018- 92.4 2019- No data. Unable to locate 2020- Covid, no data. Students were not in the clinical setting 2021- 95.6% | Evaluated the data for a pattern. One student scored "skilled" four areas. No trend was detected. | The program continues to analyze data for trends. Considering the available data, students are demonstrating a strong work ethic. |
| | MTC Work Ethic Rubric total score | ≥ 95 (out of 100) class average score | Annually - August | Paula Freeman/ Marla Smith | 2017- Work ethic was not assessed at the end of the program until 2018. 2018-93.75% 2019-no data, unable to locate 2020-91.3% 2021- 98.6% | Evaluated the data for a pattern; no pattern was detected. | The program continues to analyze data for trends. Currently, the students are demonstrating a strong work ethic. |
| 4b. Students work effectively with supervisory personnel. | Clinical Evaluation Simulation (Item 40) 40.Is cooperative to suggestions and new ideas, | ≥ 3 (on a scale of 1 to 4) average on students' final evaluation | Annually – August | Marla Smith | 2017-4.00 2018- 4.00 2019-3.88 2020- 4.00 2021- 3.90 | Nine students scored 4/4, one scored 3/4. Students are cooperative to suggestions and | The program continues to analyze data for trends. Currently, the students are |

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| | willing to take instruction, correction, and direction from staff. | | | | | new ideas. They are willing to take instruction, correction, and direction from staff. | cooperative to suggestions and new ideas. They are willing to take instruction, correction, and direction from staff. The simulation evaluation tool is under review by the clinical handbook committee. |
| | <p>Clinical Evaluation Treatment Machine (Item 40)</p> <p>40. Is cooperative to suggestions and new ideas, willing to take instruction, correction, and direction from staff.</p> | ≥ 3 (on a scale of 1 to 4) average on students' final evaluation | Annually – August | Marla Smith | 2017- 4.00 2018- 4.00 2019- 3.60 2020- 4.00 2021- 3.90 | Evaluated the data for a pattern; no pattern was detected. | The program continues to analyze data for trends. Currently, the students are demonstrating that they work effectively with supervisory personnel. |

Goal 5: The graduates will become registered radiation therapists employed in their field.

| Outcome | Assessment Tool | Benchmark | Time Frame | Person | Results | Analysis | Action Plan |
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| 5a. Graduates will pass the ARRT exam. | ARRT Registry Results | 75% of graduates will pass their first attempt of registry | Annually | Paula Freeman | 2017-100% 2018- 100% 2019-90% 2020-100% 2021- 90% Five-year average 96% | Analysis of the exam content categories showed Radiation Physics, Equipment, Quality Assurance and the Prescription and Dose Calculation categories continued to lag. (7.6) Radiation Protection scored a 7.8. | The program will implement physics review session in the final semester of the program. The program will monitor the scores for Radiation Protection. |
| 5b. Graduates will perform as entry level therapists. | MTC Alumni Satisfaction Survey (Item 7) | ≥ 3.0 (on a scale of 1 to 4) average satisfaction rating | Every three years – May | Marla Smith | 2012- 3.2 2015- 3.2 2018- 3.6 2021- 4.0 | Scores are improving over time. However, only 2 alumni responded in 2021. | No action needed. |
| | MTC Employer Satisfaction Survey (Item 4) | ≥ 80% of employers are satisfied with graduates' technical preparation | Every three years - May | Marla Smith | 2012- 100% 2015- 100% 2018- 100% 2021- 100% | The average employer rating on skills was 3.7 on a scale of 1-4. No employers indicated dissatisfaction with the radiation therapy students. N=5 | No action needed. |
| 5c. Graduates seeking employment will find employment within 12 months of graduation. | MTC Annual Graduate Outcomes Survey | ≥ 80% five-year average of all graduates seeking employment find employment in radiation therapy | Annually | Janet Greenway | 2017-100% 2018- 80% 2019-100% 2020-100% 2021- 100% | The job market was strong this year. 9 out the 10 were seeking employment. | No action needed. |

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| | | within 12 months of graduation | | | | | |
| 5d. Students will complete the program | Annual program completion rate as defined by JRCERT Standard 6.1 | ≥80% of students complete the program. | Annually | Marla Smith | 2017-100% 2018- 100% 2019-100% 2020-100% 2021- 100% | Completion rate is not an issue for the radiation therapy program. | No action needed. |