# MEDICAL DOSIMETRY, MS

## Overview

This program has a start date of July 2026.

Medical dosimetrists apply knowledge of anatomy, physics, oncology, radiobiology, and mathematics to create radiation treatment plans that aid in the management of cancer and other diseases. In this program, students will gain knowledge and skills through a combination of online coursework and in-person clinical training. Graduates will earn a Master of Science degree and will be eligible to take the national Medical Dosimetry Certification Board exam.

## Mission

The Medical Dosimetry Program at Washburn University provides quality education and support to develop medical dosimetrists who are confident, competent, and compassionate radiation oncology professionals.

## Program Outcomes

### Program Effectiveness

Medical dosimetry faculty and program affiliates will:

1. Provide a comprehensive medical dosimetry curriculum that prepares graduates to pass the national certification exam.
2. Ensure a supportive clinical experience that prepares graduates to serve the radiation oncology community as a practicing medical dosimetrist.
3. Model a commitment to lifelong learning and service to the profession.

### Program Student Learning Outcomes

Medical dosimetry students will:

1. Demonstrate clinical competence and treatment planning abilities.
2. Demonstrate professional written and verbal communication skills.
3. Apply critical thinking to complex treatment plans and clinical situations.
4. Demonstrate professionalism and a commitment to lifelong learning.

## Admission Requirements

For application information, please contact the Medical Dosimetry Program Director:

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785-670-3103

Admission to the Master of Science in Medical Dosimetry requires prior completion of a bachelor's degree or higher in a health or science field. Radiation Therapy experience is preferred but not required. Applicants must have a minimum cumulative GPA of 3.0 (on a 4.0 scale).

Program courses are only offered in an online format. Applicants are expected to be familiar with Microsoft Office products and meet the technical expectations for online students as outlined at https://www.washburn.edu/its/online-education/tech-tips.html

Prerequisite Coursework:

- Human Biology (BI 100 or equivalent)
- Human Anatomy & Physiology (BI 250 & BI 230 or equivalent), no lab required
- College Algebra (MA 116 or equivalent) or higher
- Radiation Physics
- Medical Terminology (AL 141 or equivalent)
- Introductory Writing (EN 100 or equivalent)
- Communication (any course in verbal or public speaking)
- 8+ hours of documented on-site observation in Medical Dosimetry

## Degree Requirements

| Code | Title | Hours |
|---|---|---|
| **Required Courses Inside Department** | | |
| AL 630 | Foundations of Radiation Oncology | 3 |
| AL 632 | Cross-sectional Anatomy in Medical Dosimetry | 3 |
| AL 634 | Oncology Principles I | 3 |
| AL 636 | Radiation Oncology Treatment Planning I | 4 |
| AL 638 | Radiation Physics | 3 |
| AL 640 | Ethics & Professionalism in Medical Dosimetry | 2 |
| AL 644 | Oncology Principles II | 3 |
| AL 646 | Radiation Oncology Treatment Planning II | 4 |
| AL 648 | Research Methodology in Medical Dosimetry | 3 |
| AL 650 | Quality Improvement in Radiation Oncology | 2 |
| AL 660 | Medical Dosimetry Clinical I [1] | 4 |
| AL 665 | Medical Dosimetry Clinical II [1] | 4 |
| AL 670 | Medical Dosimetry Clinical III | 3 |
| AL 675 | Medical Dosimetry Capstone | 3 |
| **Total Hours** | | **44** |

[1] Part-time students would be given the option of taking AL 660 and AL 665 for 2 credit hours and would take each of those two separate times in different years.