# ISSUED August, 2003

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# SUPERSEDES Dosimetrist

# TITLE Dosimetrist II CLASSIFICATION GRADE 09

#  SPECIALTY GRADE 86

## BASIC FUNCTION AND RESPONSIBILITY

Perform calculations, computerized treatment planning and quality assurance to ensure the accurate delivery of the prescribed dose for patients undergoing radiation therapy.

## CHARACTERISTIC DUTIES AND RESPONSIBILITIES

Generate radiation treatment plans incorporating CT (3D and 4D), MRI, PET, and other imaging data with radiation beam data using treatment planning computer systems.

Check treatment plans and medical records for patients receiving radiation therapy, and ensure that radiation doses are accurate and delivered in accordance with the treatment prescription and state regulations.

Perform image registration utilizing various imaging modalities including CT, MRI and PET.

Identify and contour patient anatomy to evaluate and limit the dose to organs at risk.

Construct treatment devices and special treatment aids as required for a specific patient.

Generate treatment plans, assist with application, and ensure proper radiation safety practices for brachytherapy treatments.

Provide dosimetry instruction for medical staff, medical residents, medical students, medical physics residents, radiation therapy technology students, and other learners as designated.

Assist in calibration, performance testing, and quality assurance of radiation therapy equipment and report repair problems to appropriate personnel.

Assist radiation physicist in calibration procedures and radiation surveys required to ensure radiation safety of patients, personnel, and the general public.

Assist radiation physicist and radiation oncologist with development, evaluation and implementation of new techniques and equipment in radiation therapy.

Assist with clinical research involving dosimetry, equipment, or treatment procedures.

Maintain effective working relationships with faculty, staff, students and the public.

*In addition to the duties and responsibilities noted above, the position description must include statements from*[*UI Health Care Core Values (WECARE)*](https://uihc.org/mission-vision-and-core-values)*for Health Care positions or*[*Universal Competencies*](https://hr.uiowa.edu/careers/competencies/universal-competencies)*for all other positions.*

### SUPERVISION RECEIVED

Supervision is received from Chief Medical Dosimetrist or other designated official.

SUPERVISION EXERCISED

Functional supervision is exercised over students and residents.

## QUALIFICATIONS

A Bachelor’s degree in a basic science or an equivalent combination of education and related experience in radiologic technology is required.

Certification by the Medical Dosimetrist Certification Board or eligible for certification through completion of a formal training program in Medical Dosimetry JCERT accredited program is required.

Experience with VMAT (Volumetric-Modulated Arc Radiation Therapy)/IMRT (Intensity-Modulated Radiation Therapy) treatment planning required.

Experience with SBRT (Stereotactic-Body Radiation Therapy) treatment planning required.

Experience with IGRT (Image-Guided Radiation Therapy) and Multi-Modality treatment planning required.

Ability to work independently.

Excellent written and verbal communication skills are required.

Excellent written and verbal communication skills are required.

Excellent interpersonal communication skills are required.

Problem-solving, teamwork, and conflict resolution skills are required.

## ~~HIGHLY~~ DESIRABLE QUALIFICATIONS

Experience with Pinnacle treatment planning desired

Experience with Monaco treatment planning desired.

Experience with MRI Linear Accelerator treatment planning desired.