

The Profession

Medical Dosimetry is a newly emerging health care profession designed to support physicians who are radiation oncologists (the use of radiation to treat cancer). Medical dosimetrists are part of the medical physics group and with the medical physicist and the radiation oncologist design treatment plans for cancer patients. Since all the calculations are derived from diagnostic scans (X-ray, CT, MRI, PET, etc.), the medical dosimetrist works primarily with computers to develop the treatment plans; once approved, the treatment is usually delivered to the patient over the period of several weeks. Medical dosimetrists work primarily in radiation treatment centers and comprehensive cancer centers. Opportunities for work in industry as application support specialists or in sales are also available. The clinical work week is typically a standard 40-hour week, though weekend and evening shifts may arise.

The increased use of computers in treatment planning, the sophistication and delivery capabilities of modern treatment machines, and the developments in cross sectional and three dimensional imaging (CT, MRI, PET) have increased tremendously the need for qualified medical dosimetrists. Employment is available both nationally and regionally. The average national salary as reported by the American Association of Medical Dosimetrists is over \$70,000 per year. The program is jointly sponsored by the UAMS Department of Radiation Oncology, Central Arkansas Radiation Therapy Institute (CARTI), and the UAMS College of Health Related Professions.

The Program

This one-year, full-time program can be taken to complete a first or second bachelor's degree or, for those already holding a bachelor's degree, to obtain an advanced certificate. The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182. Telephone: (312) 704-5300. See <http://www.jrcert.org/>.

The preprofessional curriculum for those seeking the bachelor's degree consists of 78 semester credit (SC) hours of course work based on prior degrees or certification held by the applicant. Students are required to complete 46 SC to complete the program; however, if the student is a registered radiation therapist, he/she may receive up to 14 SCs for certification as a radiation therapist.

The pre-professional curriculum required for the advanced certificate is 50 SC. The professional sequence is identical to that of those seeking a bachelor's degree described above.

Pre-professional Curriculum Bachelor's Degree

Applicants who have or will have completed a bachelor's degree in a biological sciences, physical science (physics, chemistry, or mathematics), biomedical engineering, or radiation sciences (as a registered radiation therapist) prior to fall registration will be considered for admission to seek a **bachelor's degree** if they have successfully completed the course work listed below. Those applicants who have or will have completed a bachelor's degree in a biological science, physical sciences (physics, chemistry, or mathematics), biomedical engineering, or radiation sciences (as a

registered radiation therapist) who seek admission to complete an **advanced certificate** need to complete 50 SC including the 29 SC of science and mathematics listed below, 6 SC of English Composition, 2 SC of Oral Communication/Speech, 3 SC of computer science, and 10 SC electives.

Area/Typical Course Title	Minimum Semester Credit
SCIENCE/MATHEMATICS	
College Algebra	3
Calculus I	3
Biology with laboratory	4
Anatomy and Physiology I & II*	8
Physics I & II (Algebra or Calculus based)	8
Medical Terminology	3
LIBERAL ARTS	
English Composition I & II	6
American History or National Government	3
World/Western Civilization I & II	6
Humanities	3
SOCIAL SCIENCE	
Sociology/Psychology**	6
COMMUNICATIONS	
Oral Communication/Speech	2
COMPUTER SCIENCE	
Computer Fundamentals/Applications	3
FINE ARTS	
Fine Arts (Art [including Architecture, Film, Photography], Music or Theatre Art)**	3
ELECTIVES***	
	17
TOTAL	78

Other applicants will be considered for admission to seek a **bachelor's degree** if they have successfully completed the course work listed below prior to fall registration. Those applicants seeking admission to complete an **advanced certificate**, need to complete 50 SC including the 39 SC of science and mathematics listed below, 6 SC of English Composition, 2 SC of Oral Communication/Speech, and 3 SC of computer science.

Area/Typical Course Title	Minimum Semester Credit
SCIENCE/MATHEMATICS	
College Algebra	3
Calculus I & II	6
Additional Mathematics Course Work****	3
Chemistry with Laboratory	4
Biology with Laboratory	4
Anatomy and Physiology I & II*	8
Physics I & II (Algebra or Calculus based)	8
Medical Terminology	3
LIBERAL ARTS	
English Composition I & II	6
American History or National Government	3
World/Western Civilization I & II	6
Humanities	3

SOCIAL SCIENCE

Sociology/Psychology** 6

COMMUNICATIONS

Oral Communication/Speech 2

COMPUTER SCIENCE

Computer Fundamentals/Applications 3

FINE ARTS

Fine Arts (Art [including Architecture, Film, Photography], Music or Theatre Art)** 3

ELECTIVES***

7

TOTAL

78

*Anatomy and physiology courses must cover all body systems and include accompanying laboratory sections.

**These courses can be taken as co-requisites and must be completed within five years of the date of admission into the program. Remaining pre-professional hours must be completed before acceptance into the program.

***Students who have completed radiation therapy course work from a regionally accredited college or university may apply elective course work to their prerequisite requirements.

****The additional mathematics course work can be one of these: Trigonometry, Linear Algebra, Calculus III, and Differential Equations. If the applicant has successfully completed Calculus III or Differential Equations as the additional mathematics course work, the requirement for College Algebra may be waived.

Actual course titles may vary among institutions. Consult the division director for pre-professional counseling. Fulfillment of the radiation therapy pre-professional curriculum does not assure admittance into the professional program. Not more than one course in the following group will be accepted in transfer to meet degree requirements: band, studio, physical education, military science, English as a second language (ESL), manual skills.

Professional Curriculum

For those holding the radiation therapy credential and seeking either the bachelor's degree or the advanced certificate*, the following 32 SC of course work are required:

Area/Typical Course Title	Minimum Semester Credit
Clinical Orientation for Medical Dosimetry	1
Cross-Sectional Anatomy for Medical Dosimetry	3
Medical Dosimetry Physics	3
Treatment Planning	3
Special Programs in Dosimetry	3
Research/Special Topics	3
Practicum I	2
Practicum II	2
Practicum III	6
Elective Course I	3
Elective Course II	3
TOTAL	32

*Students who hold radiation therapy certification who did not receive their education at a regionally accredited institution of higher education must elect the bachelor's degree track.

For those with appropriate science preparation who are seeking either the bachelor's degree or the advanced certificate, the following 46 SC are required:

Area/Typical Course Title	Minimum Semester Credit
Principles & Practices	2
Patient Care	2
Radiation Oncology I	3
Radiation Oncology II	4
Radiation Therapy Physics I	4
Radiation Therapy Physics II	4
Radiation Physics III	2
Radiation Biology	2
Clinical Orientation for Medical Dosimetry	1
Cross-Sectional Anatomy for Medical Dosimetry	3
Medical Dosimetry Physics	3
Treatment Planning	3
Special Programs in Dosimetry	3
Practicum I	2
Practicum II	2
Practicum III	6
TOTAL	46

Certification

Upon successful completion of an accredited medical dosimetry program, the graduate is eligible to apply for certification to the Medical Dosimetrist Certification Board (MDCB) to become a Certified Medical Dosimetrist (CMD). Successful completion of the program does not itself ensure certification.

Application Procedures and Deadlines

Class size is limited and not all applicants are selected for participation in the program. Applications must be received by May 1 to be assured of consideration for admission. Applicants must provide:

1. A completed CHRP Application for Admission.
2. An application fee (\$20.00). If applying to multiple programs, a \$20.00 fee is required for the first program and \$10.00 for each additional program.
3. Official transcripts of all previous college work.
4. A personal interview if requested.
5. Appropriate references as requested.
6. Professional Observation: Applicants are required to demonstrate an understanding of the responsibilities and duties of the profession through observation and discussion with a practicing professional in the field. Contact the department for details.
7. Admission Requirements for International Applicants: All applicants who are not United States citizens or permanent resident aliens or for whom English is not their native language must meet additional admission requirements. Please consult the Admission/Academic Information section of the CHRP Catalog found at <http://www.uams.edu/chrp/catalog/>.

Arkansas residency will be considered during selection for admission.

Applicants are considered without regard to race, color, gender, age, sexual orientation, religion, national origin or disability status as a criterion in deciding against any individual in matters of admission, placement, transfer, hiring, dismissal, compensation, fringe benefits, training, tuition assistance, and other personnel or educationally-related actions.

Fees

Shown below are fees for 2011-2012. Fees are subject to change without notice by action of the Board of Trustees, so contact the department chairman prior to registration to learn the exact fees. Note that all fees are due upon registration.

Tuition for all students:

Arkansas resident	\$220.00 per semester credit
Non-resident	\$534.00 per semester credit

Other fees (laboratory, liability insurance premiums, etc.)

Student Health fee	\$79.90 per semester (fall/spring)
Technology fee	\$46.30 per semester (fall/spring)
Student Clinic fee*	\$60.00 per semester (fall/spring)
Student Liability insurance	\$13.00 per year

*Most full-time students in Arkansas; additional information at (501) 686-5730.

Additional fees may apply; contact the department chairman prior to registration for exact fees.

Financial Assistance

Applicants may request financial aid information, which includes grants, scholarships, and student loans, from the UAMS Student Financial Services Office-Awards Division, 4301 West Markham, #864, Little Rock, AR 72205. Please visit www.uams.edu/studentfinancialservices or call (501) 686-5451 for eligibility requirements.

This brochure describes the program requirements for the 2011-2012 academic year. While it is expected that most of the requirements will apply to 2012-2013 as well, some changes are likely. You are strongly advised to contact the department/program office to receive the latest information.

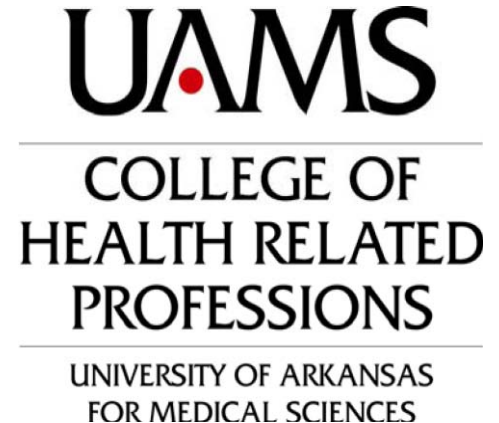
Telephone (501) 686-7100
www.uams.edu/chrp/dosimetry

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2011-2012



A Program Offered by the
 Central Arkansas Radiation Therapy Institute
 and the
 University of Arkansas for Medical Sciences