Grand Valley State University
College of Health Professions

Prerequisite Advising Worksheet

Medical Dosimetry (M.S.)

2024
Application Year

Student _____ G# _____ Date _____
(If applicable)

Email _____ Phone _____ GPA _____

Prerequisite Courses Students are responsible for the completion of prerequisites & bachelor's degree ***before*** the start of the program. Grade of "C" or better required in the following courses.	**School**	**Course Code**	**Course Title**	**Grade**
Anatomy and Physiology I (BMS 250)				
Anatomy and Physiology II (BMS 251)				
College Algebra or Trigonometry or Calculus I (MTH 122, or MTH 123 or MTH 201)				
General Physics I (PHY 220)				
General Physics II (PHY 221)				
Radiation Protection Physics (RIT 302)				
Radiation Biology (RIT 322)				
Radiation Therapy Prin. & Practices I w/ Lab (RIT 330/331)				
Radiation Therapy Principles & Practices II (RIT 332/333)				
Radiation Therapy Physics I (RIT 420)				
Gross Human Sectional Anatomy (RIT 441)				
Neoplasms (RIT 458)				
Radiation Therapy Treatment Planning w/ Lab (RIT 470/471)				
Introduction to Medical Dosimetry w/ Lab (RIT 472/473)				

Application Requirements

Requirements for consideration of admission into the program are as follows:

- Priority application deadline: **February 1st** …rolling admissions until all clinical seats are filled
- GVSU Graduate application
- Minimum 3.0 overall GPA w/ a grade of "C" or higher in all prerequisite coursework
- Completed "Prerequisite Course Verification & GPA Calculation" worksheet
- Minimum of 40 hours of volunteer/paid healthcare experience or 8 hours of medical dosimetry job shadow (documented on resume)
- Resume detailing healthcare/job shadow experiences, work experience, leadership and accomplishments
- One to two-page personal statement of career goals and background experiences.
- Three recommendations from health professionals on GVSU forms within graduate application. No letters accepted.
- Official copies of ALL transcripts **sent directly to the GVSU Admissions Office in Allendale.**
- Applicants whose native language is not English must submit results of TOEFL test.

❖ Students will be notified of acceptance into the program by March 15th.
❖ Students interested in part-time studies who have a clinical site available should contact the Program Director.

College of Health Professions ~ Medical Dosimetry Graduate Office
Cook-DeVos Center for Health Sciences, 301 Michigan Street NE, Suite 200, Grand Rapids, MI 49503
Call us at 616-331-5700 or online at www.gvsu.edu/grad/dosimetry

5/2/2023

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Radiation Therapy Prerequisite Courses	Course Descriptions
RIT 302 **Radiation Protection Physics**	This introductory course will cover the principles governing production of radiation, interaction of radiation with matter, protection of the radiation worker and patient from exposure, and use of various types of radiation (ionizing, sound, radio) to create radiologic, sonographic, and magnetic resonance images.
RIT 322 **Radiation Biology**	This lecture course considers the radiobiologic areas of radiation interactions, radio-sensitivity, radiation dose/response relationships, early and late radiation effects, radiation protection, and health physics.
RIT 330 **Principles & Practices in Radiation Therapy I**	Overview of cancer and the basic foundations of radiation therapy including: basic treatment techniques and patient setup, an introduction to patient simulation, an introduction to intensity modulated radiation therapy (IMRT) and special procedures, as well as identification and application of ethical and legal issues.
RIT 331 **Principles & Practices in Radiation Therapy I Lab**	Introductory lab on treatment and simulation techniques with patient setups specific for brain, lung, pelvis, abdomen, lumbar spine, and safe patient transfer techniques.
RIT 332 **Radiation Therapy Principles & Practices II**	Lecture and discussion sessions presenting intermediate concepts of radiation therapy treatment principles and practices for photon and electron dosimetry, neoplasms of the skin, genitourinary system, gynecologic system, gastrointestinal system, circulatory, endocrine, and respiratory systems.
RIT 333 **Radiation Therapy Principles & Practices II Lab**	This course provides intermediate laboratory sessions presenting concepts of radiation therapy treatment principles and practices for photon and electron dosimetry, skin, genitourinary, gynecologic, gastrointestinal, endocrine and respiratory neoplasms.
RIT 420 **Radiation Therapy Physics I**	Radiation therapy involves the use of ionizing radiation using various energies, particles, and techniques to treat malignancies and benign conditions, either curatively or palliatively. This course describes the principles of physics for the radiation therapist to understand the purpose of multiple radiation energies and the need for photons and electrons.
RIT 441 **Gross Human Sectional Anatomy**	This course is a study of human sectional anatomy as visualized by radiologic and imaging sciences modalities in planes relevant to the demonstration of head, thorax, abdomen, pelvic, spine, and extremity anatomy. Cadaver correlation to diagnostic medical sonography, echocardiography, diagnostic radiology, computed tomography, and magnetic resonance imaging is emphasized.
RIT 458 **Neoplasms**	Overview of the epidemiological, etiological, diagnostic, and treatment foundations of common malignant and benign lesions. Anatomical sites of exploration include: breast, prostate, ovary, colon, stomach, lymphoma, CNS, and skin.
RIT 470 **Radiation Therapy Treatment Planning**	Fundamentals of clinical radiation oncology treatment planning. Precise descriptive methods are presented for a wide range of typical patient conditions.
RIT 471 **Radiation Therapy Treatment Planning Lab**	Concepts in medical dosimetry as they are applied to clinical radiation oncology treatment planning. Presentations, demonstrations, and evaluations using laboratory treatment planning software are correlated to the lectures.
RIT 472 **Introduction to Medical Dosimetry**	Medical dosimetry concepts as they are applied to clinical radiation oncology treatment planning. Examples are given from clinical education sites that will be correlated with the corequisite laboratory.
RIT 473 **Introduction to Medical Dosimetry Lab**	Application of medical dosimetry concepts as they are applied to clinical radiation oncology treatment planning. Examples will be used from clinical education sites that will be correlated from the corequisite lecture course.

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