THE UNIVERSITY OF WINNIPEG

**For more information visit www.uwinnipeg.ca or contact a student recruitment officer at welcome@uwinnipeg.ca or 204.786.9844.** In any case where The University of Winnipeg Course Calendar and this fact sheet differ, the current Calendar takes precedence.

# Radiation Therapy 2012 - 2013

**This program is being planned for full implementation in 2012/13, subject to final administrative approval. Please contact the department chair or designate for further information.**

Radiation Therapy involves the use of radiation (in this case, high energy x-rays) to treat the cancer cells in the body. Radiation therapist programs require accreditation by the Canadian Medical Association (CMA) Conjoint Committee on Accreditation, which is required to access the Canadian Association of Medical Radiation Technologists (CAMRT) National Certification Examinations. Such certification is recognized as the minimal practice standard by all provinces, and requires a combination of completion of an accredited course of study, as provided by this 4-year B.Sc. degree, and passing of the national certification examination.

**SAMPLE COURSES**

**Human Anatomy and Physiology:** This course deals with the biological study of the human organism; microscopic and gross anatomy; cellular and general physiology, and human genetics.

**Introduction to Physics**: This is a non-calculus survey course of various topics in physics, intended for pre-medical, pre-dental, and arts students.

**Radiation Biology:** This course deals with the fundamentals of radiation biology and focuses on the effects of radiation at a cellular and molecular level. This course will be given through CancerCare Manitoba.

**Radiation Protection & Health Physics**: This course reviews the fundamental concepts that are used to minimize risk when working with sources of ionizing radiation, with emphasis on the application of these concepts to radiation therapy. This course will be given through CancerCare Manitoba.

**Physics of Radiation Therapy:** This series of lectures and labs is designed to provide the student radiation therapist with a fundamental understanding of the physical nature of both photons and electrons and specifically the manner in which they interact with an absorbing/scattering medium. The concepts presented in this series enhance the student's ability to make decisions regarding clinical radiation therapy treatments.

**SAMPLE CAREERS**

Radiation Therapists work as members of a team to deliver integrated care to patients. Working in both treatment planning and treatment delivery, they are responsible for developing treatment plans and for the operation of treatment machines and related equipment. They maintain patient treatment data, interpret treatment plans, administer prescribed treatment, and provide information and support to patients.

In addition to treatment planning and delivery Radiation Therapists participate in the clinical training of Radiation Therapy students as well as relevant educational programs to increase knowledge and competence and to meet professional needs and goals. All Radiation Therapists are members of the Canadian Association of Medical Technologists and are graduates of an accredited School of Radiation Therapy.

There is a need for a steady supply of trained individuals in Radiation Therapy to replace the normal attrition due to retirements and moves out of province. The demographics of the Canadian population are reflected in this work force and the number of retirements is expected to increase dramatically in the near future. Several provinces, including Manitoba, are expected to open new cancer centers which will result in substantial increases in employment opportunities.

**SAMPLE FIRST YEAR**

*NOTE: This sample first year is representative of the courses you may take. For many of our programs, you may choose another set of courses and still be well on your way to a degree. Also, for most programs you do not have to take 30 credit hours (five full courses) in your first year.*

BIOL-1112/6: Human Anatomy and Physiology
STAT-1501/3: Elementary Biological Statistics I
PHYS-1301/6: Introduction to Physics
SOCI-1101/6: Introduction to Sociology
RHET-1105/3: Academic Writing
6 credit hours Humanities

**REQUIRED HIGH SCHOOL COURSES**
In addition to meeting The University of Winnipeg's general admission requirements, you must have **Physics 40S** and **Pre-Calculus Mathematics 40S or Applied Mathematics 40S**. However, interested and motivated students without these prerequisites are also encouraged to contact the department.

**HOW TO APPLY – Domestic Student**
Apply online at uwinnipeg.ca or pick up an Application for Admission from your high school counsellor's office or the Admissions Office at The University of Winnipeg. To meet Scholarship deadline submit your application and $80 application fee.

**HOW TO APPLY – International Student**
Apply online at uwinnipeg.ca/index/intl-apply and submit all official documents by mail. To meet Scholarship deadline submit application, fee, and documents by March 1st. International application fee is $100, which includes a one-time courier fee.

***Note**: Students should contact the education branch of Cancercare Manitoba to see how entry into required Cancercare Manitoba courses will be restricted according to the available training laboratory spaces at Cancercare Manitoba.*

**CONTACT US**
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