DEPARTMENT OF ONCOLOGY GRADUATE PROGRAM
List of Approved Courses – Medical Physics Specialization

Course Requirements

Degree of MSc:
Course requirements are recommended by the supervisor and supervisory committee based on the background of the student and the area of research to be undertaken. A minimum of *9 in graded graduate-level courses chosen from the approved course listing, or approved equivalent is required. Students are required to enroll in a lecture-based background course and a seminar style course – normally these are ONCOL 520 or ONCOL 524 and ONCOL 661/ONCOL 660 respectively, but in exceptional circumstances, ONCOL 320, ONCOL 425 or some other seminar course, may be substituted, with the approval of the Associate Chair, Graduate Studies. Students are also required to attend ONCOL 661/ONCOL 660 seminars during all years of their program.

Degree of PhD:
For Students entering the PhD program after a BSc degree, the minimum course requirement is *12 in graded graduate-level courses chosen from the approved course listing, or approved equivalent. For students entering the PhD program after a MSc degree, in the same discipline the minimum course requirement is *6 in graded graduate-level courses chosen from the approved course listing, or approved equivalent. As with the Master’s program, students are required to enroll in a lecture based course and a seminar course – normally ONCOL 520 or ONCOL 524 and ONCOL 660/ONCOL 661, in the second year. Students are also required to attend ONCOL 661/ONCOL 660 during all years of their program and to give at least three seminars (usually one per year) through ONCOL 660.

Approved Courses
BME 320 Human Anatomy and Physiology: Cells and Tissue
BME 321 Human Anatomy and Physiology: Systems
ONCOL 550 Medical Radiation Physics
ONCOL 552 Fundamentals of Applied Dosimetry *3 (fi 6) (second term, 3-0-0).
ONCOL 554 Laboratory in Medical Radiation Physics
ONCOL 556 Laboratory in Imaging *2 (fi 4) (Spring/Summer, 0-0-4).
ONCOL 558 Health Physics *2 (fi 4) (first term, 2-0-0).
ONCOL 560 Technology In Radiation Oncology *2 (fi 4) (first term, 2-0-0).
ONCOL 562 Theory of Medical Imaging *3 (fi 6) (first term, 3-0-0).
ONCOL 564 Physics of Nuclear Medicine *3 (fi 6) (second term, 3-0-0).
ONCOL 566 Radiation Biophysics *3 (fi 6) (first term, 3-0-0).
ONCOL 568 Physics of Diagnostic Radiology
ONCOL 600 Graduate Medical Physics Seminar
ONCOL 620 Recent Advances in Cancer Research *3 (fi 6) (two term, 0-3s-0).
ONCOL 660 Current Topics in Cancer Research *2 (fi 4) (second term, 0-1.5s-0).
ONCOL 661 Current Topics in Cancer Research II *1 (fi 2) (first term, 0-1s-0).
ONCOL 690 Biomedical Magnetic Resonance Methods and Applications *3 (fi 6) (first term, 3-0-0).
ONCOL 691 Advanced Magnetic Resonance Physics *3 (fi 6) (either term, 3-0-0).
ONCOL 692 Advanced Radiological and Nuclear Imaging Physics *3 (fi 6) (either term, 3-0-0).
ONCOL 693 Advanced Radiotherapeutic Physics *3 (fi 6) (either term, 3-0-0).