

# RADIOLOGY - MD (RADI)

## **RADI 099 Introduction to Radiology 3 cr**

Students will spend 3 hours per week rotating in the Department of Radiology for 10 weeks. Instruction in and reinforcement of Radiological Anatomy will be provided. The fundamentals of Radiology such as Methods of Image Formation and Interpretation will be introduced. Basic radiological-pathological correlation will be taught.

## **RADI 400 Radiology Externship 1-4 cr**

To be determined.

## **RADI 401 Statistical Meth in Clin Med 1-4 cr**

This course offers a survey at an elementary level of classical statistical methods; probability, classification and measurement, sampling, description, estimation, hypothesis testing, analysis of variance, correlation, regression, prediction, and decision. Examples are drawn from the medical literature. The duties and responsibilities of the student(s) will include meeting regularly with the instructor in tutorial sessions and the preparation of a short term paper on a topic in medical statistics that is of mutual interest to the student and the instructor. The paper may consist of one or more refereed evaluations or previously published research reports. The student will also prepare and maintain a notebook on his/her readings and tutorials. The education materials include a large library of textbooks, reports, and papers in statistical methods, as well as a PC computer with a large library of statistical software.

## **RADI 402 Radiol Physics and Radia Bio 1-4 cr**

The course offers a survey at an elementary level of the physics and radiation biology of diagnostic and therapeutic radiology. The sources, detection, and measurement of ionizing radiation are reviewed. The interactions of radiation and matter are considered. The pathological effects of radiation are discussed. Dose-response relations and somatic and genetic effects are described and the pharmacological aspects of irradiation are developed. The principles of radiation protection are developed including the modification of the effects of a given dose of radiation by chemical enhancement or suppression. The duties and responsibilities of the student(s) will include meeting regularly with the instructor in tutorial sessions and the preparation of a short term paper on a topic in radiological physics or radiation biology that is of mutual interest to the student and the instructor. The student will also prepare and maintain a notebook of his/her readings and tutorials. The education materials include a large library of textbooks, reports, and papers in radiological physics and radiation biology, as well as 3 PC computers and radiation measuring instruments, etc.

## **RADI 420 Basic Radiology 1-4 cr**

Students will be given the opportunity to rotate through all radiology work areas where they can observe procedures and film reading and become acquainted with the operation of the department. Students will attend departmental conferences which deal with various facets of radiology. A self-instructional teaching file on the major organ systems is available for use at any time. Students will choose an interesting case to research during the course of the elective and will present it at the end of the rotation to residents and staff during conference time. Students are to participate on a full-time basis and will be responsible for limited night and weekend on-duty call with the radiology resident.

## **RADI 423 Radiology Clerkship 1-4 cr**

Students will be given the opportunity to rotate through at least four sub-specialty and general radiology services where they will become acquainted with technical skills and interpretive practices. Toward the end of each week, the students will participate as residents in the performance and interpretation of procedures under direct supervision of responsible faculty members. They will attend departmental conferences for residents and students. Some flexibility as to the sub-specialty rotation will be coordinated with the student's special interests. Opportunities will be available in the general reading areas as well as sub-specialty areas in Angiography, Computed Tomography, Ultrasound, Nuclear Medicine, and Magnetic Resonance Imaging. Students are to participate on a full-time basis and will be responsible for night and weekend on-duty call with the radiology resident.

## **RADI 426 Radiation Oncology 1-4 cr**

This elective will expose the student to the care of oncology patients. The elective offers experience in complete patient work-ups, rounds, and conferences. The student should develop a knowledge of: (1) modes of presentation and natural history of human neoplasms, (2) multidisciplinary anti-tumor therapy (with emphasis on the primary principles of radiation therapy), (3) emotional and nutritional aspects of neoplastic diseases, and (4) newer advances in basic and clinical cancer research. The student will be exposed to patients from a variety of disciplines and should grasp the fundamentals of (1) methods of early detection, (2) recognition of curable cancers, (3) recognition of treatable cancers and palliative care, (4) oncologic emergencies and awareness of the major complications of each, and (5) specific techniques in physical diagnosis in each of these disciplines.

## **RADI 427 Pediatric Radiology 1-4 cr**

The rotation includes active participation in all pediatric radiology activities - film interpretation, special procedures and imaging modalities, active participation in the nursery and pediatric conferences, consultations with pediatric surgery, and attendance at the Pediatric Radiology Conference and Grand Rounds. Reviewing the pediatric teaching file and CD-ROM images in the Radiology Department will be encouraged.

## **RADI 444 Spec Elec-Radiology 1-4 cr**

To be prepared by the student in conjunction with the Course Director and approved by the Vice Dean before course can be added to schedule. This course is designed to offer students and faculty/clinical faculty an opportunity to develop electives which are not offered in the Elective Manual. Such an elective may be made permanent and printed in the next edition of the Elective Manual at the request of the Course Director and with the approval of the Curriculum Committee. At the discretion of the Vice Dean, this elective may count as the required "in-house" elective.