

RADI 6032

Clinical Therapy Rotation 3

Fall 2016

CLASS DAYS and TIME: Monday – Friday 8:00 a.m. – 5:00 p.m.

CLASSROOM: CTRC Building – Radiation Oncology Clinic

COURSE FACULTY: Niko Papanikolaou, Ph.D., Sotirios Stathakis, Ph.D., Alonso N. Gutierrez, Ph.D., M.B.A., Neil Kirby, Ph.D., Karl Rasmussen, Ph.D., James Prete, Ph.D.

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READ THIS DOCUMENT CAREFULLY - YOU ARE RESPONSIBLE FOR ITS CONTENTS.

COURSE DESCRIPTION AND OBJECTIVES

In the third semester of the clinical rotation, the students will cover the following topics: treatment plan checks, weekly chart checks, brachytherapy planning and QA, LINAC design, SRS Treatment Planning (SRS) and daily, monthly and annual QA, participation in all aspects of SBRT treatment and treatment planning QA.

Pre-requisites – RADI 6025 and RADI 6026

Semester credit hours – 12

By the end of this course, each student should be able to:

- Describe the major components of the OBI, OBI daily and monthly QA
- Describe the ExacTrack, and the ExacTrack daily and monthly QA.
- Prepare beam scanning system for measurements and familiar with software.
- Plan 2D and 3D cases independently using Pinnacle.

COURSE ORGANIZATION

The student is assigned a mentor from the physics staff and performs clinical tasks under the mentor's direct supervision. A rotation is considered complete when all rotation assessments have been signed off by the mentor and student.

Materials – See below

Computer Access – Many of the presentations are given in the common lecture format and are accompanied by Pdf converted PowerPoint slide files. You are responsible for all information included in the lecture materials. However, you should not assume that all testable lecture material is found only in the posted materials. That is, lectures may be expanded and enhanced during in-class presentations. So, take good notes because any information discussed in class is considered testable.

Reading Assignments – Required reading assignments are assigned throughout the rotations. Unless specifically noted by the instructor, anything in the required readings, whether emphasized in class or not, is considered testable on exams.

ATTENDANCE

In order to achieve the expected level of competency, students must be fully engaged. Therefore, attendance for every class session is expected. It is recognized that a student may occasionally arrive late to class due to unexpected traffic problems or inclement weather. However, chronic lateness is considered an unprofessional behavior that disrupts the learning environment for everyone else in the classroom.

TEXTBOOKS

Required: [Click here to enter text.](#)

GRADING POLICIES AND EXAMINATION PROCEDURES

A rotation is considered complete when all rotation assessments have been signed off by the mentor and student. Failure to complete a rotation or unsatisfactory progress in a rotation will be reviewed by the DMP Committee on Graduate Studies (COGS). The student will be notified in writing of their probationary status and will be given a plan for remediation.

Secure a passing grade for twenty one (21) monthly written exams on the assigned topics that will be covered during each rotation. Each exam is two hours long, and has up to 50 multiple choice questions. Passing grade is considered to be a score above 70%. In case of a failing exam grade, a second exam will be given within 7 days. After a second failed attempt, the student will be given a plan for remediation that has to be completed before the next examination.

Complete a comprehensive oral examination every 6 months. Oral examinations are considered complete when the oral evaluation form has been signed by the appropriate faculty mentor and student. A minimum of two faculty members must be present during the examination or else the examination will be rescheduled.

REQUESTS FOR ACCOMMODATIONS FOR DISABILITIES

In accordance with policy 4.2.3, **Request for Accommodation Under the ADA and the ADA Amendments Act of 2008 (ADAAA)**, any student requesting accommodation must submit the appropriate request for accommodation under the American with Disabilities Act (ADA, form 100). to his/her appropriate Associate Dean of their School and a copy to the ADA Coordinator. Additional information may be obtained at <http://uthscsa.edu/eeo/request.asp>.

ACADEMIC INTEGRITY AND PROFESSIONALISM

Any student who commits an act of academic dishonesty is subject to discipline as prescribed by the UT System Rules and Regulations of the Board of Regents. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, signing attendance sheets for another student, and any act designed to give unfair advantage to a student or the attempt to commit such an act. Additional information may be obtained at <http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academicdishonestypolicy/>

TITLE IX AT UTHSCSA

Title IX Defined:

Title of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads "no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

University of Texas Health Science Center San Antonio's Commitment:

University of Texas Health Science Center San Antonio (UTHSCSA) is committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, UTHSCSA does not discriminate on the basis of sex in its education programs and activities, and it encourages any student, faculty, or

staff member who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to immediately report the incident to the Title IX Director.

In an emergency, victims of sexual abuse should call 911. For non-emergencies, they may contact UPD at 210-567-2800. Additional information may be obtained at <http://students.uthscsa.edu/titleix/>

EMAIL POLICY

Every student is issued a University e-mail address and account at the time of enrollment. As a matter of University Policy, communications between students and faculty that occur using the student's University e-mail address is considered official business. Therefore, students are expected to check their university email inboxes on a regular basis so that any announcements, instructions, or information regarding this course will be received in a timely way. Missed communications due to inadequate monitoring of incoming emails on the University's email server will never be a valid excuse for unsatisfactory academic progress.

USE OF RECORDING DEVICES

Recording of lectures and other learning activities in this course by any means (*e.g.*, video, audio, etc.) is only permitted if approved by the instructor or required for compliance with Americans with Disabilities Act (ADA).

ELECTRONIC DEVICES

Cell phones must be turned off during all class meetings and exams. Computers and electronic tablets are allowed only for participating in classroom activities (*e.g.*, viewing slides presented in lecture or conference materials). No texting, tweeting, emailing, web-surfing, gaming, or any use of electronic devices that is not directly connected with classroom activities is permitted.

Objectives Master Checklist
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Activity
OBI design and function: The resident knows the major components of the OBI. Has completed form R.3.A.
OBI Daily, Monthly QA
ExacTrack design and function: The resident knows the major components of the ExacTrack. Has completed form R.3.B.
ExacTrac Daily, Monthly QA
Participate in a complete linac annual QA
Prepare beam scanning system for measurements and familiar w/ software
The RPC: The resident knows what the RPC is/does.
Measurement devices: The resident knows how to use all the common measurement devices listed in the Rotation #3 objectives.
TBI and TSE: The resident has participated in each of these procedures and can explain the planning/treatment/QA process. <i>These cases are infrequent, the resident will continue to participate in these cases as needed for the duration of the residency.</i>
Pinnacle planning: The resident can plan 2D and 3D cases independently. The resident will take RADI7006 "Treatment planning techniques for IMRT"

Activity
Annual LINAC QA: The resident has read TG-51, TG-40 and TG-142 and knows recommended quality assurance measures and limits. The resident has participated in at least two annual QAs . The resident could perform an annual Linac QA with little supervision.
Pinnacle planning: RADI7006 "Treatment planning techniques in IMRT" The resident can treatment plan independently on Pinnacle. The resident has completed plans listed in form R.4.B.
Normal tissue toxicity: The resident can recite normal tissue toxicities for conventional fractionation and single fraction irradiation. Complete form R.4.A.
LDR planning: The resident can plan independently on Prowess
<i>Participate in the treatment process for two eye plaque patients. Involvement should include design of the plaque, ordering of the sources, construction of the plaque, and loading and unloading of the plaque. These procedures occur infrequently so the resident should prioritize this procedure when one occurs.</i>
Learn shielding techniques for CT, kV imaging, LINAC and isotopes. <i>Resident will participate in shielding calculations for new equipment when available. Resident should be able to perform shielding calculations independently by the end of rotation #4.</i>