

**RAD 360**  
**FUNDAMENTALS OF RADIATION THERAPY**  
**RICK MCKINNIES**  
**FALL 2016**

**COURSE DEFINITION:**

This course includes an introduction to the principles and concepts of radiation therapy; an introduction to the rationale for and methods employed in the treatment of cancer by radiation therapy; and an introduction to radiation therapy and its relationship to other modalities utilized in the treatment of cancer.

**COURSE OBJECTIVES:**

1. Introduce and discuss the functions associated with radiation and environmental protection.
2. Demonstrate an understanding of radiation tolerance of tissues and organs.
3. Introduce and discuss the monitoring responsibilities and role of a radiation therapist.
4. Introduce and discuss various aspects of patient care, management, education, and record keeping.
5. Demonstrate an understanding of radiobiology.

**COURSE OUTLINE:**

1. Radiation and environmental protection.
2. Dose to critical structures.
3. Monitoring the patient, treatment room, and treatment machine.
4. Radiation therapy record keeping.
5. Ethics.
6. Professional interactions.
7. Radiobiology

**COURSE CLASSROOM and TIME:**

Room- ASA 11

Tuesday and Thursday – 12:00 pm to 12:50 pm

**COURSE REQUIREMENTS:**

Purchase all required texts and keep all handouts, attend all lectures, complete required examinations and quizzes.

**ATTENDANCE POLICY:**

The instructor must be notified prior to class if you are going to be absent. One percent of total grade will be deducted for every class missed. Ten minutes late to a class counts as an absence.

**MEANS OF STUDENT EVALUATION:**

Grades will be determined by:

1. Test Performance .....70%
2. Quizzes/Homework.....30%

Grading Scale

- 93 - 100 = A  
85 - 92 = B  
77 - 84 = C  
70 - 76 = D  
0 - 69 = F

**Final Exam Time:** TBA

**PREREQUISITES:** Instructor approval.

## TEXTBOOKS:

1. Washington, C. M., & Leaver, D. T. (2015). Principles and Practices of Radiation Therapy (4<sup>th</sup> Ed). St. Louis, MO: Mosby.
2. Optional : Travis, E.L. (1989). Primer of Medical Radiobiology (2<sup>nd</sup> Ed.) St. Louis, MO: Mosby – Year Book, Inc.
3. Optional: Vann, A. M. et al. Portal Design in Radiation Therapy (3<sup>rd</sup> Ed.) Columbia, SC. R.L. Bryan Company.

## CLASSROOM BEHAVIOR:

The classroom is a “safe” environment for students. The focus will be on learning. Causing disruptions, harassment of other students, foul language, disrespect for others, or entertaining at someone else’s expense will not be tolerated.

For a detailed explanation of Student Code, consult “Student Conduct Code” found in Important information for siuc students, faculty, and staff. All other rules of the code must be followed. The Student Conduct Code is available at: <http://www.siu.edu/~policies/policies/conduct.html>

Testing:

No student will be allowed to leave class during testing for any reason until the test is completed and turned in for a grade.

Academic Honesty:

All students are expected to adhere to a strict code of academic honesty. Academic dishonesty will be addressed according to the “Policies and Procedures Applicable to Academic Dishonesty” as stated in the “Important Information for Students, Faculty, & Staff” booklet.

From the “Student Conduct Code”, section II, article A:

Acts of Academic Dishonesty:

1. Plagiarism, representing the work of another as one’s own work;
2. Preparing work for another that is to be used as that person’s own work;
3. Cheating by any method or means;
4. Knowingly and willfully falsifying or manufacturing scientific or educational data and representing the same to be the result of scientific or scholarly experiment or research;
5. Knowingly furnishing false information to a university official relative to academic matters;
6. Soliciting, aiding, abetting, concealing, or attempting conduct in violation of this code.

Sanctions will be imposed for violations of this policy in accordance with the Student Conduct Code. A copy of the “Important Information for Students, Faculty & Staff” booklet can be obtained from the Office of the Vice Chancellor for Student Affairs, Mailcode 4308, Southern Illinois University, Carbondale, IL 62901-4308.

## ADA Accommodations:

In keeping with the goal of the implementation of the Americans with Disabilities Act (ADA), all students for whom this act applies should notify the instructor no later than the second session of the course so that arrangements can be made for accommodations to meet your educational needs and maximize learning.

## Emergency Procedures:

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on the BERT’s website at [www.bert.siu.edu](http://www.bert.siu.edu), Department of Public Safety’s website [www.dps.siu.edu](http://www.dps.siu.edu) (disaster drop down) and in the Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. **It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.** The Building Emergency Response Team will provide assistance to your

instructor in evacuating the building or sheltering within the facility.

### **OFFICE HOURS:**

|                     |          |                                             |
|---------------------|----------|---------------------------------------------|
| Office- Room 213A   | Tuesday  | 9:00 a.m.-11:00a.m. and 3:00 p.m.-4:00p.m.  |
| Building- CASA      | Thursday | 9:00 a.m.-11:00 a.m. and 3:00 p.m.-4:00p.m. |
| Phone- 453-7260     | Friday   | 10:00 a.m.-12:00 p.m.                       |
| Email- rmck@siu.edu |          |                                             |

Also available immediately after class or by appointment.

### **BEING PREPARED FOR CLASS**

Students must be prepared for class by having all required textbooks available, reading required chapters, and having all assignments complete when entering the classroom.

### **SIU POLICY ON “INCOMPLETE” AS A COURSE GRADE**

An INC assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. An INC must be changed to a complete grade within a time period designated by the instructor but not to exceed one year from the close of the term in which the course was taken, or graduation whichever occurs first. Should the student fail to complete the course within the time period designated, not to exceed one year, or graduation, whichever comes first, the incomplete will be converted to a grade of F and the grade will be computed in the students grade point average. Students should not register for courses in which an INC has been assigned with the intent of changing the INC grade. Re-registration will not prevent the INC from being changed to an F.

### **MOBILE TECHNOLOGY POLICY**

No mobile devices are allowed during class unless first Okayed by the instructor.

### **STATEMENT ON INCLUSIVE EXCELLENCE**

SIU contains people from all walks of life, from many different cultures and sub-cultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ from you is an important part of your education in this class, as well an essential preparation for your career.

### **STATEMENT ON ACADEMIC HONESTY/PLAGIARISM**

As defined by the SIUC **Student Conduct Code**, acts of academic dishonesty include, but are not limited to:

1. **Plagiarizing** or representing the work of another as one’s own work;
2. Preparing work for another that is to be used as that person’s own work;
3. Cheating by any method or means;
4. Knowingly or willfully falsifying or manufacturing scientific or educational data and representing the same to be the result of scientific or scholarly experiment or research;
5. Knowingly furnishing false information to a university official relative to academic matters;
6. Soliciting, aiding, abetting, concealing, or attempting acts of academic dishonesty.

### **RESOURCES FOR ADDITIONAL ACEDEMIC HELP**

Supplementary Assistance: With cooperation of SIU’s Disability Support Services (DSS), each student who qualifies for reasonable supplementary assistance has the right to receive it. Students requesting supplementary

assistance must first register with DSS in Woody Hall B-150, (453-5738) or <http://disabilityservices.siu.edu/>

Notice: If you have any type of special need(s) or disability for which require accommodations to promote learning in this class, please contact me as soon as possible. The Office of Disability Support Services (DDS) offers various support services and can help you with you with special accommodations. You may wish to contact DDS at 453-5738 or go to Room 150 at Woody Hall to verify your eligibility and options for accommodations related to your special need(s) or disability.

### **SIU EMAIL POLICY**

Official SIU student Email Policy: <http://policies.siu.edu/policies/email.htm>

SIU Student Conduct Code: <http://policies.siu.edu/documents/StudentsConductCodeFINALMay32011.pdf>

### **SALUKI CARES**

The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress-physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. To make a referral to Saluki Cares click, call or send: <http://salukicare.siu.edu/index.html>; (618) 453-5714. Or [siucare@siu.edu](mailto:siucare@siu.edu)