The Physics of Medical Dosimetry II
Spring Semester Syllabus

COURSE DEFINITION:
RAD 540-3 The Physics of Medical Dosimetry II – This course covers the following topics: imaging for radiation oncology, IMRT, stereotactic radiosurgery, special procedures, particle therapy, hyperthermia, and radiation safety. This course is twenty weeks in length. Prerequisite: A grade of “C” or better in RAD 520.

COURSE OBJECTIVES:

1. Demonstrate an understanding of imaging in radiation oncology.
2. Demonstrate an understanding of IMRT.
3. Demonstrate an understanding of stereotactic radiosurgery and gamma knife.
4. Demonstrate an understanding of particle therapy.
5. Demonstrate an understanding of hyperthermia.
6. Demonstrate an understanding of radiation safety.

COURSE OUTLINE:

Topics
1. Oncology imaging
2. IMRT techniques
3. Stereotactic radiosurgery and gamma knife
4. Particle therapy
5. Hyperthermia
6. Radiation safety

COURSE REQUIREMENTS:

Purchase all texts, attend all lectures, and complete required examinations, quizzes, and homeworks. Purchase a TI30XA scientific calculator.

PREREQUISITES: A grade of “C” or better in RAD 520.

TEXTBOOKS:

Required:

Optional: (Students typically use clinical sites’ copy)

**GRADING SCALE:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>Failing</td>
<td>&lt;70</td>
</tr>
</tbody>
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Grades will be determined by:

- Test Performance: 65%
- Quizzes/Homework: 35%

**Note:** An overall GPA of 3.0 or greater in all graduate coursework is required to successfully complete the Medical Dosimetry Program. This is a SIUC Graduate School Policy.

**COURSE CLASSROOM and TIME:**

Room- Live Video Conferencing

Monday and Wednesday- Noon to 1:30 pm

**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.

**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.

**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.

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, pp. 22-32. All other rules of the code must be followed. The Student Conduct Code is available at: http://www.siuc.edu/~policies/policies/conduct.html

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 ACADEMIC 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.

**EMERGENCY PROCEDURE STATEMENT**

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 BERT's website at www.Bert.siu.edu, Department of Safety's website www.dps.siu.edu (disaster drop down) and in Emergency Response Guideline 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:**

Scott Collins  
Office- Room 211B  
Building- CASA  
Phone- 453-8800  
Email- kscollin@siu.edu

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**SIU EMAIL POLICY**

Official SIU student Email Policy:  [http://policies.siu.edu/policies/email.htm](http://policies.siu.edu/policies/email.htm)

SIU Student Conduct Code:  

**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://salukicares.siu.edu/index.html; (618) 453-5714. Or siucares@siu.edu