Fall 2019

Diagnostic Radiological Physics I
ENU 6657; Section 1C98; 3 Credits

CLASS MEETING INFO
9:30-10:25 am; Tuesday, Wednesday and Thursday  CG-49
Clinical lecture location Radiology Large Conference room G-101
2 pm or 3:30 pm Some Wednesdays Demonstration Lab Sessions- South tower radiology department

INSTRUCTORS
Lynn Rill; rillln@radiology.ufl.edu
Office Hours by arrangement, G-089
Stephanie Leon; leons@radiology.ufl.edu
Office Hours by arrangement, G-087
Manuel Arreola; arreom@radiology.ufl.edu
Office Hours by arrangement, G-097

RESIDENT ASSISTANTS
Edmond Olguin; eolg0001@radiology.ufl.edu,
Alok Shankar; salo0001@radiology.ufl.edu,
EXT.44307, Office Hours by arrangement, G-520

DESCRIPTION

PRE-REQUISITES/CO-REQUISITES
None

REQUIRED TEXTBOOK

COURSE SCHEDULE
8/20/19 Lecture 1:  X-Ray Production / LR / Chapters 2,6
8/21/19 Lecture 2:  X-Ray Systems I: X-Ray Tubes / LR / Chapter 6
8/22/19 Lecture 3:  X-Ray Systems II: X-Ray Generators, Power Ratings and Heat / LR / Chapter 6
8/27/19 Lecture 4:  X-Ray Systems III: X-Ray Spectra and Beam Filtration / LR / Chapter 6
8/29/19 Lecture 6:  X-Ray Projection Imaging II: Photon Interactions and Subject Contrast / LR / Chapter 3
9/5/19 Lecture 7:  X-Ray Projection Imaging III: Scattered and Primary Photons, Grids, AEC / LR / Chapter 7
9/10/19 Lecture 8:  X-Ray Detectors: Scintillators and Photoluminescent Phosphors / LR / Chapter 7
9/11/19 Lecture 9:  X-Ray Image Quality I: Image Quality and Dose Tradeoffs (Diagnostic Reference Levels) / LR / Chapter 4
9/11/19 Demo Lab 1:  mA, time, blur, AEC, noise Demo
9/12/19 Lecture 10:  General Radiology Clinical Lecture: Eric Thoburn, MD / ET (conference room G-101)
9/17/19 Lecture 11:  X-Ray Image Quality II: Image Quality Indicators: Noise, Contrast and Spatial Resolution / MA / Chapter 4
9/18/19 Midterm 1:  Material through 9/12/19 Lecture 10 (Communicore room C1-11)
9/19/19 Lecture 12:  X-Ray Image Quality III: Fourier Transforms and Convolutions / MA / Chapter 4

The Foundation for The Gator Nation
An Equal Opportunity Institution
ATTENDANCE POLICY; CLASS EXPECTATIONS; MAKE-UP POLICY

Attendance is required. Cell phones should not be used during class. Tardiness and lack of participation in lab sessions will be taken into account in the Participation Grade. Make-up exams may be scheduled in advance by arrangement.

Excused absences must be consistent with university policies in the Graduate Catalog and require appropriate documentation: http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance

EVALUATION OF GRADES

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<tr>
<th>Assignment</th>
<th>Total Points</th>
<th>Percentage of Final Grade</th>
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<tr>
<td>Midterm 1 Exam</td>
<td>100</td>
<td>30%</td>
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<tr>
<td>Midterm 2 Exam</td>
<td>100</td>
<td>30%</td>
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<tr>
<td>Final Exam</td>
<td>100</td>
<td>30%</td>
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<tr>
<td>Attendance and Class/ Demo Lab</td>
<td>100</td>
<td>10%</td>
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<tr>
<td>Participation</td>
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<td>Total: 100%</td>
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GRADING POLICY

<table>
<thead>
<tr>
<th>Percent</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93-100</td>
<td>A</td>
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<tr>
<td>90-92</td>
<td>A-</td>
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<td>87-89</td>
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<td>83-86</td>
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<td>63-66</td>
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More information on UF grading policy may be found at: [http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades](http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades)

STUDENTS REQUIRING UF GRADING POLICY

Students with disabilities requesting accommodations should first register with the Disability Resource Center ([352-392-8565; https://www.dso.ufl.edu/drc](https://www.dso.ufl.edu/drc)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

EVALUATIONS

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at [https://evaluations.ufl.edu/evals](https://evaluations.ufl.edu/evals). Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at [https://evaluations.ufl.edu/results/](https://evaluations.ufl.edu/results/).

UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code ([https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/](https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/)) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

SOFTWARE USE

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

STUDENT PRIVACY

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: [http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html](http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html)

CAMPUS RESOURCES

Health and Wellness

**U Matter, We Care**

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to

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reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center
352-392-1575; http://www.counseling.ufl.edu/cwc

Sexual Assault Recovery Services (SARS)
352-392-1161; Student Health Care Center

University Police Department
352-392-1111 (or 911 for emergencies); http://www.police.ufl.edu/

Academic Resources

E-learning Technical Support
352-392-4357 (select option 2); learning-support@ufl.edu; https://lss.at.ufl.edu/help.shtml

Career Resource Center
Career assistance and counseling.
352-392-1601; Reitz Union; https://www.crc.ufl.edu/

Library Support
Various ways to receive assistance with respect to using the libraries or finding resources.
http://cms.uflib.ufl.edu/ask

Teaching Center
General study skills and tutoring.
352-392-2010 or 352-392-6420; Broward Hall; https://teachingcenter.ufl.edu/

Writing Studio
Help brainstorming, formatting, and writing papers.
352-846-1138; 302 Tigert Hall; https://writing.ufl.edu/writing-studio/

Student Complaints Campus

On-Line Students Complaints
http://www.distance.ufl.edu/student-complaint-process