

ECE 6786 ---- Medical Imaging Systems

Summer semester, 2016

Instructor	Dr. Lei Zhu, Boggs 3-85 Tel: 404-385-3882 email: leizhu@gatech.edu						
Objectives	To acquaint graduate students in medical physics or related majors with the most commonly used imaging modalities: x-ray, computed tomography, nuclear medicine, ultrasound and MRI. To provide imaging system analysis in terms of impulse response, spatial resolution, detection sensitivity, noise, and potential for improved diagnosis.						
Lectures	Mon, Wed, 1:00-3:00 PM.						
Office hours	By appointments.						
Textbook	None.						
Reference	Medical Imaging Systems, (Macovski) Medical Imaging Signals and Systems, (Prince and Links).						
Grading policy	<table><tr><td>Exam I (x-ray and nuclear medicine)</td><td>50%</td></tr><tr><td><u>Exam II (ultrasound and magnetic resonance imaging)</u></td><td><u>50%</u></td></tr><tr><td>total</td><td>100%</td></tr></table>	Exam I (x-ray and nuclear medicine)	50%	<u>Exam II (ultrasound and magnetic resonance imaging)</u>	<u>50%</u>	total	100%
Exam I (x-ray and nuclear medicine)	50%						
<u>Exam II (ultrasound and magnetic resonance imaging)</u>	<u>50%</u>						
total	100%						
Homeworks	A few homework problems will be distributed throughout the semester, but will not be graded.						