

BME 541	Diagnostic Ultrasound Physics						
Catalog Data	Propagation of ultrasonic waves in biological tissues; principles of ultrasonic measuring and imaging instrumentation; design and use of currently available tools for performance evaluation of diagnostic instrumentation; biological effects of ultrasound.						
Course Total Credit Hours:	3	Lecture:	3	Laboratory:	-	Project	-
Prerequisites:	Modern physics, calculus & Fourier analysis or consent of instructor.						
Course Coordinator:	Biomedical Engineering Faculty						
Textbooks							
Diagnostic Ultrasound Imaging: Inside Out by Thomas Szabo, 2004.							
References							
1. Essentials of Ultrasound Physics by James A. Zagzebski, 1996. 2. Diagnostic Ultrasound: Physics and Equipment by Peter Hoskins, Abigail Thrush, Kevin Martin, and Tony Whittingam 2002.							
Goals	To familiarize the students with the essential science and signal processing principles of diagnostic ultrasound including scattering, propagation, and imaging.						
Projects							
Major CAD Packages							
Last Review:	Spring Semester 2008			Signature:			