INFORMATION SHEET

Instructor: Thomas Liu, Department of Radiology
Center for Functional Magnetic Resonance Imaging (fMRI), Room 1001
(858) 822-0542 , ttliu@ucsd.edu

Teaching Assistant: Anna Leigh Rack-Gomer, arackgom@ucsd.edu (Office hours TBA)

Lectures: Tuesdays/Thursdays 9:30 a.m. to 10:50 a.m., Sequoyah Hall 148

Office Hours: Tuesdays 2 to 3 pm; Wednesdays 1 to 2 pm; or by appointment.
Center for fMRI Conference Room.

Prerequisites: Graduate Standing or Consent of Instructor.

Required Texts: Medical Imaging Signals and Systems, Jerry L. Prince and Johnathan M.

Principles of Magnetic Resonance Imaging, Dwight G. Nishimura (we will order copies of this from the author)

Course Web Site: http://cfmriweb.ucsd.edu/ttliu/BE280A_07.html
(mirror site: http://fmriserver.ucsd.edu/ttliu/BE280A_07.html)
Lecture notes will be posted on the web by 5 p.m. the day before the class.

Course e-mail list: Course e-mails will be sent through StudentLink to registered students.

Course Description: Fundamentals of Fourier transform and linear systems theory including
convolution, sampling, noise, filtering, image reconstruction, and
visualization with an emphasis on applications to biomedical imaging.
Examples from optical imaging, CT, MRI, ultrasound, nuclear, PET, and
radiography.

Grading: 25% Homework/Quizzes/Class Participation, 35% Midterm Project, 40% Final Project