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: Omer Tal; otal@ucsd.edu; (Office hours: TBD)

Lectures: Tuesdays/Thursdays 9:30 a.m. to 10:50 a.m., Powell-Focht

Bioengineering Hall, Room 161

Office Hours: Mondays 4 to 5 pm; Wednesdays 12 pm to 1 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.

Links, Prentice Hall 2006. Errata available at

http://iacl.ece.jhu.edu/~prince/mibook/mierrata-v1.03.pdf

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 10.html

(mirror site: http://fmriserver.ucsd.edu/ttliu/BE280A_10.html)

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 CT, MRI, EEG, and MEG, with a focus on functional

brain connectivity.

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

Final Project/Exam