INFORMATION SHEET

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Lectures: Mondays/Wednesdays 11 a.m. to 12:20 p.m.,
Powell-Focht Bioengineering Hall, Room 161

Office Hours: Listed at the course website.

Prerequisites: Graduate Standing or Consent of Instructor.

Required Texts: Principles of Magnetic Resonance Imaging, Dwight G. Nishimura
(students can order through Lulu.com)(1 copy available on reserve at the S&E library)

Supplementary Text: Medical Imaging Signals and Systems, Jerry L. Prince and Johnathan M.
(1 copy available on reserve at the S&E library)

Course Web Site: http://cfmriweb.ucsd.edu/ttliu/BE280A_12.html
(mirror site: http://fmriserver.ucsd.edu/ttliu/BE280A_12.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, time-frequency analysis, blind source separation, and visualization with an emphasis on applications to biomedical imaging. Examples from MRI and EEG, with a focus on functional brain connectivity and integration of information from different modalities.

Grading: Class Participation 15%; Homeworks 20%; Quizzes/Midterm 30%;
Final Project/Exam 35%