

### INFORMATION SHEET

- Instructor: Thomas Liu, Department of Radiology  
Center for Functional Magnetic Resonance Imaging (fMRI), Room 1008  
(858) 822-0542 , [tliu@ucsd.edu](mailto:tliu@ucsd.edu)
- Teaching Assistant: Eric Roller, [eroller@ucsd.edu](mailto:eroller@ucsd.edu) (Office hours TBA)
- Lectures: Tuesdays/Thursdays 9:30 a.m. to 10:50 a.m., Warren Lecture Hall 2208
- Office Hours: Tuesdays/Thursdays 11 a.m. to 12 pm or by appointment.  
Center for fMRI Conference Room.
- Prerequisites: Consent of Instructor.
- Required Text: Medical Imaging Signals and Systems, Jerry L. Prince and Johnathan M. Links, Prentice Hall 2005.
- Optional Text: Principles of Magnetic Resonance Imaging, Dwight G. Nishimura (we will custom order copies of this from the author)
- Course Web Site: [http://cfmri.ucsd.edu/tliu/BE280A\\_05.html](http://cfmri.ucsd.edu/tliu/BE280A_05.html)  
(mirror site: [http://fmriserver.ucsd.edu/tliu/BE280A\\_05.html](http://fmriserver.ucsd.edu/tliu/BE280A_05.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: 15% Homework and Quizzes, 5% Class Participation, 40% Midterm Project/Exam, 40% Final Project