

### 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: Joy Liau, [jliau@ucsd.edu](mailto:jliau@ucsd.edu) (Office hours TBA)
- Lectures: Tuesdays/Thursdays 9:30 a.m. to 10:50 a.m., Cognitive Science 004
- Office Hours: Tuesdays/Wednesdays 2 to 3 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 2005. Errata available at  
<http://iacl.ece.jhu.edu/~prince/mibook/mierrata-v1.02.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/tliu/BE280A\\_06.html](http://cfmriweb.ucsd.edu/tliu/BE280A_06.html)  
(mirror site: [http://fmrserver.ucsd.edu/tliu/BE280A\\_06.html](http://fmrserver.ucsd.edu/tliu/BE280A_06.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/Class Participation, 35% Quizzes/Midterm, 40% Final Project