## **PSY 596: Foundations of Neuroimaging**

## Professor Marty Sereno Fall Semester 2017



I am delighted to offer a new SDSU Learning Glass course on the Foundations of Neuroimaging.

This fall, SDSU is wrapping up the construction of an imaging center in the new Engineering and Interdisciplinary Sciences building (EIS) that will house a 3T researchdedicated MRI magnet.

Have you ever wondered how neuroimaging using MRI *really* works? Or how electrical signals measured on the scalp are generated or localized? Do you want to learn how to reconstruct your own cortical surface? (to inflate it, 3D-print it, or

animate it on youtube :-} ). Or maybe you've always wanted to really learn the Fourier transform to impress your friends and be the life of the party.

If so, this class is for you! It will take you through the background needed to deeply understand how modern neuroimaging works at a pace that you *will* be able to keep up with. We go slower than a typical engineering course, but we won't skimp on the math.

This course uses a live Learning Glass lecture recording system, which makes reviewing the tricky parts a snap.

This class is designed for and may be of interest to upper-division undergraduate and graduate students in psychology, biology, computer science, engineering, and philosophy. There are two take-home MATLAB problem set midterms (undergraduate and graduate) and a final paper (undergraduate 5 pages, graduate 10 pages). Undergraduates and graduates will be graded on independent scales.

For more info, contact Dr. Marty Sereno at: <a href="mailto:msereno@sdsu.edu">msereno@sdsu.edu</a> Prerequisite: PSY 101 and/or permission of the instructor Time and Place: MWF 1:00–1:50 PM, SSW 2667 (Learning Glass Studio) Syllabus: <a href="http://goo.gl/iTeGBq">http://goo.gl/iTeGBq</a>