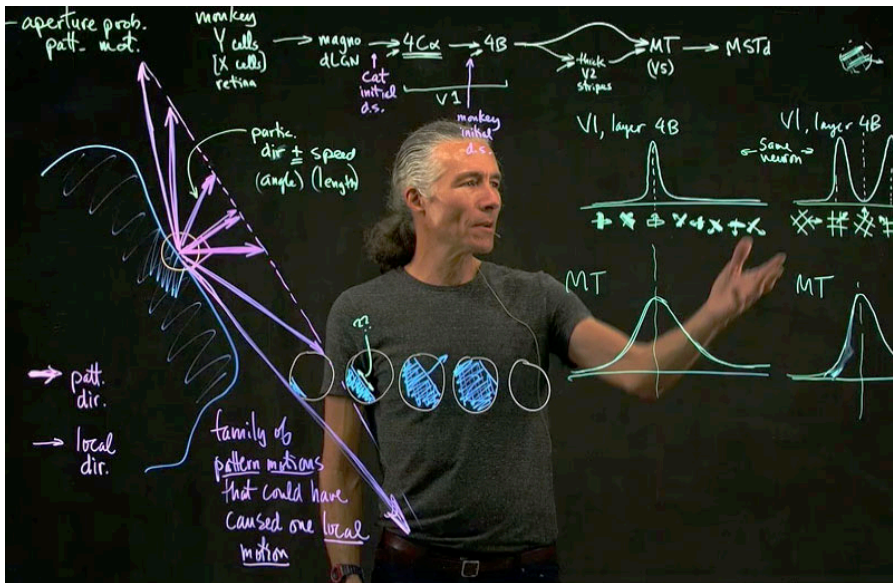# SCI 596: Systems Neuroscience
Professor Marty Sereno
Spring Semester 2019

I am delighted to offer an SDSU course on system neuroscience.

I direct the SDSU MRI Imaging Center sited in the north campus Engineering and Interdisciplinary Sciences building.

Though my current research uses structural and functional magnetic resonance imaging to study the human brain, I have a strong background in the neuroanatomy, neurophysiology, evolution, and computational modeling of human and animal brains, and a perennial urge to explain how we think this all works.

This course will be taught in the Learning Glass Studio because of its heavy emphasis on diagrams of nervous system parts, features, connections, and signals and systems ways to think about them.

This wide-ranging course is designed to train students to:

- explain basic neuronal chemistry, electronics, development, and evolution

- diagram basic neuroanatomical structures and their connections in the visual, somatosensory, auditory, motor, limbic systems

- analyze sequential processing stages in the visual, somatosensory, auditory, motor, limbic systems from a signals & systems perspective

- *NEW in 2019*: in-class identification of structures in projected brain sections

This class is designed for and may be of interest to upper-division undergraduate and graduate students in *psychology, biology, computer science, engineering, physics, and philosophy*. Graduate students attend all lectures and take the two midterms and final, but also attend a graduates-only session, and have a short final paper. Undergraduates and graduates will be graded on independent scales.

For more info, contact Dr. Marty Sereno at: msereno@sdsu.edu

Prerequisite: PSY 260 or 360 or 361 or 352 or 365 or BIOL 570 or permission of the instructor.

Time and Place: MWF 9:00–9:50 AM, SSW 2667 (Learning Glass Studio)

Syllabus: http://mri.sdsu.edu/sereno/596