830:411 Advanced Topics in Psychobiology-WI
Brain Health
Professor Tracey J. Shors, Ph.D.
SEC 216 MTH2 (10:20-11:40am)

Prerequisites: 830:310 (Neuropsychology), 830:311 (Conditioning and Learning) or 830:313 (Physiological Psych)
(Jr/Sr 830 Major or permission of instructor is a prereq for Adv Topics/400 Level courses)

The course is an upper level course in Psychology, with an emphasis on topics related to the neuroscientific study of brain health. In addition to scientific papers, students will read 3-4 books related to the covered topics. Students will also be required to construct essays, participate in class discussions and complete standard exams. The topics to be covered will include:

- BASICS OF BRAIN STRUCTURE AND FUNCTION
- BODY/BRAIN DISTINCTIONS: FALSE OR OTHERWISE
- HOW NEUROGENESIS AND LEARNING INTERACT TO MAINTAIN A FIT BRAIN
- ENDOGENOUS BRAIN OSCILLATIONS AS THEY RELATE TO COGNITIVE FUNCTION
- SEX DIFFERENCES IN LEARNING, MEMORY AND MENTAL ILLNESS
- EXERCISE AS A COGNITIVE ENHANCER AND AS THERAPY FOR MENTAL ILLNESS
- MEDITATION AND MINDFULNESS AS THERAPY FOR MENTAL ILLNESS
- CONSCIOUSNESS AND ITS PUTATIVE NEURONAL MECHANISMS
- NEURONAL AND MENTAL CONSEQUENCES OF CHILDHOOD TRAUMA
- PSYCHOTROPIC MEDIATIONS AND THEIR PARADOXICAL ROLE IN MENTAL ILLNESS

Books:
- Far from the Tree, Andrew Solomon, 2012

Examination and Grading: The testing will consist of both written essays (~5) and standard objective testing with examinations (2). Each student will be expected to demonstrate proficiency in his or her communications skills by the end of the course.