INTD 5046 Meta-analysis in Cognitive Neuroimaging

CLASS DAYS and TIME: Friday, 3:00 pm -5:00 pm

CLASSROOM: McDermott 2.610

COURSE FACULTY: Peter T. Fox, M.D.
OFFICE LOCATION and HOURS: Contact Dr. Fox or Mary Ann Martinez by e-mail to schedule an appointment **EMAIL:** fox@uthscsa.edu (Dr. Fox); martinezma0@uthscsa.edu (Mrs. Martinez). **OFFICE:** McDermott 2.416
TELEPHONE: 210-567-8150

COURSE DESCRIPTION AND OBJECTIVES

This course teaches the concepts, methods and applications of coordinate-based meta-analysis (CBMA) as applied to the human neuroscience imaging literature. Primary emphasis is placed on using the BrainMap database and its suite of meta-analytic software tools (www.brainmap.org). Statistical approaches taught include: activation likelihood estimation and anatomical likelihood estimation (ALE), meta-analytic connectivity mapping (MACM), connectivity-based parcellation (CBP), independent components analysis (ICA), graph theoretical modeling (GTM), and structural equation modeling (SEM). Imaging modalities for which meta-analytic approaches are taught include: task-activation functional MRI and PET, resting-state functional MRI and PET, and structural MRI.

Students should finish the course with a thorough understanding of CBMA concepts methods and have begun employing them in their own research.

Pre-requisites: RADI 6051 Statistical parametric mapping and RADI 6017 Neuroimaging Methods are recommended but not required.

Semester credit hours – 2.5 Semester Credit Hour

COURSE ORGANIZATION
The main teaching modalities used in this course include:

1) **Lectures**
2) **Journal-article discussion**
3) **Student projects (data coding and meta-analyses)**
4) **Presentations of student projects**

Materials – Bring your laptop to all lectures.
Computer Access –Wireless
Reading Assignments – Papers will be passed to students at least a week before.

READ THIS DOCUMENT CAREFULLY - YOU ARE RESPONSIBLE FOR ITS CONTENTS.

ATTENDANCE

Attendance is mandatory. Students are expected to obtain permission in advance if they will be unable to attend a class session.

TEXTBOOKS
Required: None required.
Recommended: Recommend reading Fox et al., 2014 Annual Reviews of Neuroscience before enrolling. Articles pdfs will be distributed by e-mail prior to in-class discussion.

GRADING POLICIES AND EXAMINATION PROCEDURES

Presentation and participation, Final Project. No formal exam.

Grading System

A = 90-100% B = 80-89% C = 60-69% F = < 60%

REQUESTS FOR ACCOMODATIONS FOR DISABILITIES

ACADEMIC INTEGRITY AND PROFESSIONALISM

Any student who commits an act of academic dishonesty is subject to discipline as prescribed by the UT System Rules and Regulations of the Board of Regents. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, signing attendance sheets for another student, and any act designed to give unfair advantage to a student or the attempt to commit such an act. Additional information may be obtained at
http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academicdishonestypolicy/

TITLE IX AT UTHSCSA

Title IX Defined:

Title of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads “no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”

In accordance with policy 4.2.3, **Request for Accommodation Under the ADA and the ADA Amendments Act of 2008 (ADAAA)**, any student requesting accommodation must submit the appropriate request for accommodation under the American with Disabilities Act (ADA, form 100). To his/her appropriate Associate Dean of their School and a copy to the ADA Coordinator. Additional information may be obtained at http://uthscsa.edu/eeo/request.asp.

University of Texas Health Science Center San Antonio's Commitment:

University of Texas Health Science Center San Antonio (UTHSCSA) is committed to maintaining a learning

environment that is free from discriminatory conduct based on gender. As required by Title IX, UTHSCSA does not discriminate on the basis of sex in its education programs and activities, and it encourages any student, faculty, or staff member who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to immediately report the incident to the Title IX Director.

In an emergency, victims of sexual abuse should call 911. For non-emergencies, they may contact UPD at 210-567- 2800. Additional information may be obtained at http://students.uthscsa.edu/titleix/

EMAIL POLICY

As a matter of University Policy, official communications between students and faculty occur using the student's university assigned "livemail" email address. Students are expected to check their university email on a daily basis. Missed communication due to inadequate monitoring of university email is not a valid excuse for failing to perform expected activities. Students are welcome to email the instructors at any time.

USE OF RECORDING DEVICES

Prior approval from the presenter is required before use of recording devices.

ELECTRONIC DEVICES

Cell phones shall not be used during class (unless requested to do so by the instructors). Use of social media or email via any devices is not allowed during class.