INSTRUCTOR & LABORATORY STAFFING:
Kenneth J. Sufka, Ph.D., Professor of Psychology & Pharmacology/Research Professor, RIPS
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COURSE DESCRIPTIONS:
Psy 405: Participate in small research projects under the direction of a faculty member.
Psy 420: Independent study of topics of mutual interest to student and professor.

MEETING TIMES:
Seminar meetings are scheduled for Monday at 1:00 p.m. in 108 Peabody Building. Laboratory research times (6-9 hrs/week) are assigned depending upon the specific research project. In many cases, you will be required to work weekends. At other times during the term you may have the week off. Unless announced in advance, we will always meet for seminar.

COURSE OBJECTIVES:
This course is designed to provide exceptional students an opportunity to become involved in cutting edge neuroscience and psychopharmacology research. Over the course of the semester, you will learn many aspects of the research process. These include, among others, literature searches, reviews and presentations, experimental design and statistical analyses, animal care, and various animal experimental procedures from drug injections to brain extractions/dissections. This laboratory has many ongoing research projects and collaborations; your participation will help us meet these research obligations.

RESEARCH PROJECTS:
Animal model validation, stress and anxiety/depression; pain and analgesia (cancer models and migraine); drug discovery (botanical-derived products and synthetic chemistry); addiction.

UNIVERSITY COMPLIANCE REQUIREMENTS FOR CONDUCTING ANIMAL RESEARCH:
To become familiar with the University of Mississippi Animal Care and Use program, go to the Animal Research web site at http://www.olemiss.edu/depts/research/compliance/animal/index.html
Prior to working with animals, students must:
1. Complete species-specific training for bird, rat and mouse
2. Complete Health & Safety training (biological, chemical, and pathogen)
3. Submit Occupational Health Evaluation and Occupational Health Risk Inventory
4. Read, sign and submit allergy forms
5. Obtain tetanus vaccine (provided free of charge) if you have not had one within the past 10 years
6. Attend ORSP-IACUC Ethics in Animal Research Seminar (to be scheduled later this term)

ATTENDANCE & RESEARCH INTEGRITY POLICY:
Students are required to attend each and every seminar meeting and scheduled laboratory research assignment. If you have to miss a seminar meeting or laboratory research due to an illness or personal emergency, please notify one of us as soon as possible. Arriving late for or missing a scheduled lab will lead to an instructor-initiated drop. Any violation of university or federal animal welfare policies and laws or evidence of research misconduct will result in an F assigned for the course and a recommendation of expulsion and will be handled by university disciplinary procedures (see M-Book for details).
COURSE EXAMS AND GRADING:
There are no exams for this course. Psy 405 and Psy 420 students begin this course with Z and A grades, respectively. Please do all the readings, participate in seminars, and show up for all lab assignments and your grade will remain the same. Should your grade slip because you cannot meet these obligations, I will provide extra lab and library assignments.

COURSE READING MATERIALS:
Selected articles from scientific journals and/or book chapters (partial reading list is detailed below) will be assigned throughout the term. You will need to be ready to discuss such material in a meaningful way with your colleagues in the laboratory. In many cases, you will be asked to provide oral presentations of such material; students conducting their own research project will be required to propose and defend such project to their lab colleagues. You will need a flash drive so we can provide these articles in PDF files.

ANIMAL MODELING:

DEPRESSION MODELS:

CHICK ANXIETY DEPRESSION MODEL:

GLUTAMATE AND DEPRESSION:
BDNF AND DEPRESSION:
Santos AR, Comprido D, Duarte CB (2010) Regulation of local translation at the synapse by BDNF. Progress in Neurobiology, 92, 505-516.

COGNITIVE BIAS & ENDOPHENOTYPING:

ANHEDONIA AND DEPRESSION

ENVIRONMENTAL ENRICHMENT:
D’Andrea I, Gracci F, Alleva E, Branchi I (2010) Early social enrichment provided by communal nest increases resilience to depression-like behavior more in female than male mice. Behavioural Brain Research, 215, 71-76.

PAIN AND ANALGESIA MODELS:


CANNABINOIDS AND CANCER-RELATED PAIN:

ANIMAL MODELS OF MIGRAINE:

NOTA BENE:
• This is an extraordinary opportunity to be involved in psychopharmacology research projects. These studies reflect a tremendous investment from the scientists involved. Treat this experience and those people leading projects with commitment, conscientiousness and respect. In most instances, you will be
reporting directly to a Research Technician or Graduate Research Assistants who are assigned to keep the laboratory running in a most efficient and productive capacity.