PSYCHOLOGY 405  MINOR RESEARCH PROBLEMS
PSYCHOLOGY 420  SPECIAL TOPICS

Spring Semester 2010

INSTRUCTOR/LABORATORY STAFFING:
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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 309 Peabody Building. Laboratory
  research times (6-9 hrs/week) are TBA depending upon the specific research project. In some cases, you
  will be required to work weekends. At other times during the term you may have the week off from
  scheduled lab research. Some research will involve literature searches and reviews. Unless announced in
  advance, we will always meet for seminar.

COURSE OBJECTIVES:
This course is designed to provide exceptional students an opportunity to learn more about
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, research design and statistical analyses, animal care, and various animal experimental
procedures from drug injections to data collection. This research laboratory has many research obligations
and your participation in this process will help us meet these research agendas.

RESEARCH PROJECTS:
  Animal modeling; stress and anxiety/depression, pain and analgesia, drug discovery (botanical-
derived products and synthetic chemistry)

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 and submit signed allergy forms
5. Obtain tetanus vaccine (provided free of charge) if you have not had one within the past 10 years

ATTENDANCE 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.

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. Continue to 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.

ON ANIMAL MODELING:

CHICK ANXIETY DEPRESSION MODEL:

DEPRESSION MODELS:

COGNITIVE BIAS & ENDOPHENOTYPING:
STATE VS. TRAIT ANXIETY:

ENVIRONMENTAL ENRICHMENT:

PAIN AND ANALGESIA MODELS:

BIOCHEMICAL SUBSTRATES IN STRESS MODELS:

NOTA BENE:
• This is an extraordinary opportunity for you to be involved in high stakes research projects. These projects reflect a tremendous investment from the scientists involved. Treat this experience and those people leading the projects with commitment, conscientiousness and respect.
• Any evidence of research misconduct will result in your removal from course, assignment of an F grade and a recommendation of expulsion from UM.
• When the Graduate Research Assistants ask you to do something, think of this as coming from me.