1.) DATE: 04/13/10  
2.) COMMUNITY COLLEGE: Maricopa Co. Comm. College District

3.) COURSE PROPOSED: Prefix: PSY Number: 275 Title: Biopsychology Credits: 4

<table>
<thead>
<tr>
<th>CROSS LISTED WITH: Prefix:</th>
<th>Number:</th>
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<th>Number:</th>
<th>; Prefix:</th>
<th>Number:</th>
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</thead>
</table>

4.) COMMUNITY COLLEGE INITIATOR: L. TRAN·NGUYEN  
PHONE: 480-461-7925

ELIGIBILITY: Courses must have a current Course Equivalency Guide (CEG) evaluation. Courses evaluated as NT (non-transferable are not eligible for the General Studies Program.

MANDATORY REVIEW:

☐ The above specified course is undergoing Mandatory Review for the following Core or Awareness Area (only one area is permitted; if a course meets more than one Core or Awareness Area, please submit a separate Mandatory Review Cover Form for each Area).

POLICY: The General Studies Council (GSC-T) Policies and Procedures requires the review of previously approved community college courses every five years, to verify that they continue to meet the requirements of Core or Awareness Areas already assigned to these courses. This review is also necessary as the General Studies program evolves.

AREA(S) PROPOSED COURSE WILL SERVE: A course may be proposed for more than one core or awareness area. Although a course may satisfy a core area requirement and an awareness area requirement concurrently, a course may not be used to satisfy requirements in two core or awareness areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirements and the major program of study.

5.) PLEASE SELECT EITHER A CORE AREA OR AN AWARENESS AREA:

Core Areas:  Natural Sciences (SG)  
Awareness Areas: Select awareness area...

6.) On a separate sheet, please provide a description of how the course meets the specific criteria in the area for which the course is being proposed.

7.) DOCUMENTATION REQUIRED

☒ Course Description
☒ Course Syllabus
☒ Criteria Checklist for the area
☒ Table of Contents from the textbook required and/or list of required readings/books
☒ Description of how course meets criteria as stated in item 6.

8.) THIS COURSE CURRENTLY TRANSFERS TO ASU AS:

☐ DEC prefix  
☐ Elective

Current General Studies designation(s): None

Effective date: 2011 Spring  Course Equivalency Guide

Is this a multi-section course?  ☒ yes  ☐ no

Is it governed by a common syllabus?  ☒ yes  ☐ no

Chair/Director: SUSAN KARPINSKI

Correct CEG List:  
PSY Dept Elective Credit

Effective Date:
Proposer: Please complete the following section and attach appropriate documentation.

### ASU-[SG] CRITERIA

**I. - FOR ALL GENERAL [SG] NATURAL SCIENCES CORE AREA COURSES, THE FOLLOWING ARE CRITICAL CRITERIA AND MUST BE MET:**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Criterion</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td>☐</td>
<td>1. Course emphasizes the mastery of basic scientific principles and concepts.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>2. Addresses knowledge of scientific method.</td>
<td>See Attached</td>
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<tr>
<td>☑</td>
<td>☐</td>
<td>3. Includes coverage of the methods of scientific inquiry that characterize the particular discipline.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>4. Addresses potential for uncertainty in scientific inquiry.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>5. Illustrates the usefulness of mathematics in scientific description and reasoning.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>6. Includes weekly laboratory and/or field sessions that provide hands-on exposure to scientific phenomena and methodology in the discipline, and enhance the learning of course material.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>7. Students submit written reports of laboratory experiments for constructive evaluation by the instructor.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>8. Course is general or introductory in nature, ordinarily at lower-division level; not a course with great depth or specificity.</td>
<td>See Attached</td>
</tr>
</tbody>
</table>

**II. - AT LEAST ONE OF THE ADDITIONAL CRITERIA THAT MUST BE MET WITHIN THE CONTEXT OF THE COURSE:**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Criterion</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td>☐</td>
<td>A. Stress understanding of the nature of basic scientific issues.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>B. Develops appreciation of the scope and reality of limitations in scientific capabilities.</td>
<td>See Attached</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>C. Discusses costs (time, human, financial) and risks of scientific inquiry.</td>
<td></td>
</tr>
</tbody>
</table>
Course Prefix | Number | Title | Designation
--- | --- | --- | ---
PSY | 275 | Biopsychology | SG

Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

<table>
<thead>
<tr>
<th>Criteria (from checksheet)</th>
<th>How course meets spirit (contextualize specific examples in next column)</th>
<th>Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- See detailed explanation containing information requested in this table on attached pages.</td>
<td></td>
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<td>2</td>
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<td>3</td>
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</tbody>
</table>

1- See detailed explanation containing information requested in this table on attached pages.
I. Critical criteria for General [SG] Natural Sciences core area courses:
   1. **Course emphasizes the mastery of basic scientific principles and concepts.**
      a. **How course meets spirit:**
         Students will be introduced to the multidisciplinary field of biopsychology to understand the biological basis of behavior and mental processes. Thus, each topic covered in the course involves the integration of knowledge from various neuroscience fields such as neuroanatomy, neurochemistry, neuroendocrinology, neuropathology, neuropharmacology, and neurophysiology.
      b. **Course competencies met:**
         1. Describe the organization of the nervous system and communication mechanisms within the nervous system.
         2. Compare and contrast brain research methods.
         4. Using brain models, identify important structures and circuits.
         5. Hypothesize how nervous system damage would specifically impact behavior.
         6. Explain the development of the nervous system.
      c. **Evidence in syllabus and textbook:**
         All chapters covered in the syllabus involve the coverage of knowledge gained from various related neuroscience fields. Specifically:
         Chapter 3: Anatomy of the NS
            Lab: sheep brain and coloring book
         Chapter 4: Neural Conduction/Synaptic Transmission
            Lab: Neuron Model building; EEG and consciousness research study; S.G. worksheets
         Chapter 10: Neuroplasticity
            Lab: EEG & memory research study
         Chapter 11: Learning and Memory
            Lab: EEG & memory research study; S.G. worksheets
         Chapter 13: Hormones and Sex
            Lab: “Sex Unknown” case study; S.G. worksheets
         Chapter 17: Stress and Emotions
            Lab: EKG research experiment; S.G. worksheets
         Chapter 15: Drug Addiction and Reward Circuits
            Lab: drug abuse and addiction simulated lab; S.G. worksheets
         Chapter 18: Biopsychology of Psychiatric Disorders
            Lab: S.G. worksheets.
2. **Addresses knowledge of scientific method. (This criteria is met by the competencies and activities listed under criteria 3 below.)**

3. **Includes coverage of the methods of scientific inquiry that characterize the particular discipline.**
   a. **How course meets spirit:**
      Biopsychology is an empirical science that gains knowledge about the underlying biological basis of behavior and mental processes through converging lines of evidence from experimental studies using animal models and quasi-experimental and correlational research from human patients. Various aspects of the scientific process are emphasized to students throughout the course including the cooperative nature, nonlinear steps guided by empirical questions, development of hypotheses, data collection/analysis, and formulation of scientific inferences.
   b. **Course competencies met:**
      2. Compare and contrast brain research methods.
      3. Follow sensory and motor pathways and structures through the nervous system.
      5. Hypothesize how nervous system damage would specifically impact behavior.
      7. Describe the functions of brain areas involved in higher level information processing, including memory and learning.
      8. Discuss the neural and hormonal control of sleep, eating behavior, and sexual behavior.
     11. Apply the concepts of lateralization to language.
     12. Identify the causes and treatment of neurological disorders and psychological disorders.
   c. **Evidence in syllabus:**
      The following chapters cover the general characteristics of research approaches common to the field of biopsychology. Specifically:
      Chapter 1: Biopsychology as a Neuroscience
         Lab: critical thinking
      Chapter 5: Research Methods
      Chapter 6: Visual System
         Lab: S.G. worksheets
      Chapter 7: Perception & Awareness
         Lab: EEG & consciousness research study; S.G. worksheets
      Chapter 10: Neuroplasticity
         Lab: EEG & memory research study
      Chapter 11: Learning and Memory
Lab: EEG & memory research study; S.G. worksheets
Chapter 12: Hunger, Eating, and Health
Lab: Taste demonstration; S.G. worksheets
Chapter 13: Hormones and Sex
Lab: “Sex Unknown” case study; S.G. worksheets
Chapter 17: Stress and Emotions
Lab: EKG research experiment; S.G. worksheets
Chapter 18: Biopsychology of Psychiatric Disorders
Lab: S.G. worksheets

4. Addresses potential for uncertainty in scientific inquiry.
   a. How course meets spirit:
      Biopsychology research relies on experimental studies using
      animal models and quasi-experimental and correlational research from
      human patients. Although studies using animal models are generally well-
      controlled, the differences in animal nervous system compared to human
      nervous system are potential concerns and limitations that warrant
      uncertainty in the inferences that can be made from animal samples to the
      human population. In addition, quasi-experimental and correlational
      approaches from neuropsychological research lack experimental control
      and thus, also limit inferences that can be made from brain damaged
      human patients. Strengths and weaknesses of scientific
      inferences/conclusions are emphasized in regards to the limitations of the
      particular research design used.
   b. Course competencies met:
      2. Compare and contrast brain research methods.
      3. Follow sensory and motor pathways and structures through the nervous
         system.
      5. Hypothesize how nervous system damage would specifically impact
         behavior.
      7. Describe the functions of brain areas involved in higher level
         information processing, including memory and learning.
     11. Apply the concepts of lateralization to language.
     12. Identify the causes and treatment of neurological disorders and
         psychological disorders.
   c. Evidence in syllabus:
      Scientific inferences and the limitations and potential design flaws of
      research studies are discussed throughout the chapter readings and
      emphasized in lectures. Specifically:
      Chapter 1: Biopsychology as a Neuroscience
Lab: critical thinking
Chapter 5: Research Methods  
Lab: S.G. worksheets
Chapter 6: Visual System  
Lab: S.G. worksheets
Chapter 7: Perception & Awareness  
Lab: EEG & consciousness research study; S.G. worksheets
Chapter 10: Neuroplasticity  
Lab: EEG & Memory research study
Chapter 11: Learning and Memory  
Lab: EEG & Memory research study; S.G. worksheets
Chapter 12: Hunger, Eating, and Health  
Lab: Taste demonstration; S.G. worksheets
Chapter 17: Stress and Emotions  
Lab: EKG research experiment; S.G. worksheets
Chapter 18: Biopsychology of Psychiatric Disorders  
Lab: S.G. worksheets

5. Illustrates the usefulness of mathematics in scientific description and reasoning. (This criteria is met by the competencies and activities listed under criteria 7 below).

6. Includes weekly laboratory and/or field sessions that provide hands-on exposure to scientific phenomena and methodology in the discipline, and enhance the learning of course material.
   a. How course meets spirit:
   The Biopsychology course engages students in hands-on laboratory activities at least twice a week. Study guide labs (SG-Labs) involve hands-on activities in the form of worksheets that are constructed to help students to focus on critical outcomes of topics covered in the unit. Research labs (Res.-Labs) involve 3 formal research studies that involve the reading of journal articles, design of research, data collection, writing lab reports, and oral presentations.
   b. Course competencies met:
   1. Describe the organization of the nervous system and communication mechanisms within the nervous system.
   2. Compare and contrast brain research methods.
   3. Follow sensory and motor pathways and structures through the nervous system.
   4. Using brain models, identify important structures and circuits.
   5. Hypothesize how nervous system damage would specifically impact behavior.
6. Explain the development of the nervous system.
7. Describe the functions of brain areas involved in higher level information processing, including memory and learning.
8. Discuss the neural and hormonal control of sleep, eating behavior, and sexual behavior.
10. Predict the effects certain types of drugs would have on the brain and on behavior.
11. Apply the concept of lateralization to language.
12. Identify the causes and treatment of neurological disorders and psychological disorders.

c. Evidence in syllabus:
SG-Labs are set up to help student learn and review basic brain anatomy through sheep brain dissections, anatomy coloring book, 3-D model building, demonstrations, question and answer, fill-in the blank worksheets. Specifically:
Lab 1: critical thinking
Lab 2-5: sheep brain dissection and coloring book
Lab 6: Neuron Model building; neurotransmission S.G. worksheets
Lab 7: Development S.G. worksheets
Lab 10: “Genie” case study Q&A worksheet
Lab 11: Visual system S.G. worksheets
Lab 12: Perception and awareness S.G. worksheets
Lab 13: Learning and memory S.G. worksheets
Lab 15: Taste demonstration; hunger, eating, health S.G. worksheets
Lab 16: “Sex Unknown” case study Q&A worksheets; hormones and sex S.G. worksheets
Lab 20-21: drug abuse and addiction simulated lab worksheets
Lab 22: Biopsychology of psychiatric disorders S.G. worksheets

Res.-Labs are set up to help students engage in the scientific process:
Labs 7-9: EEG and consciousness research study
labs 12-14: EEG and memory research study
labs 17-19: EKG and mental and physical arousal research experiment

7. Students submit written reports of laboratory experiments for constructive evaluation by the instructor.

a. How course meets spirit:
The Biopsychology course engages students in three formal research studies that provide them with direct experience on the scientific research process. Students develop their ideas based on the materials provided in
lecture and through the reading of journal articles. They then engage with other students and the professor to design the research. Following data collection on each other, they analyze and graph the data using SPSS. Finally, students write up formal lab reports and present their findings to the class in oral group presentations.

b. Course competencies met:
   1. Describe the organization of the nervous system and communication mechanisms within the nervous system.
   2. Compare and contrast brain research methods.
   7. Describe the functions of brain areas involved in higher level information processing, including memory and learning.

c. Evidence in syllabus:
   Res.-Labs are set up to help students engage in the scientific process. Specifically:
   Chapter 1: Neural conduction; synaptic transmission
      Labs7-9: EEG and consciousness research study
   Chapter 11: Learning and memory
      Labs12-14: EEG and memory research study
   Chapter 17: Stress and emotion
      Labs17-19: EKG and mental and physical arousal research experiment.

8. Course is general or introductory in nature, ordinarily at lower-division level; not a course with great depth or specificity.

a. How course meets spirit:
   All course competencies are addressed in lecture and discussed in the text (Biopsychology 7th edition by Pinel) in general terms that are intended to provide students with an introduction to the various areas of biopsychology. This book was chosen specifically because the “emphasis of Biopsychology is on broad themes rather than details.” After completing the course, students will have a basic understanding of the biological basis of behavior and cognition that will provide the foundation for more advanced biological psychology courses.

b. Course competencies met:
   1. Describe the organization of the nervous system and communication mechanisms within the nervous system.
   2. Compare and contrast brain research methods.
   3. Follow sensory and motor pathways and structures through the nervous system.
   4. Using brain models, identify important structures and circuits.
5. Hypothesize how nervous system damage would specifically impact behavior.
6. Explain the development of the nervous system.
7. Describe the functions of brain areas involved in higher level information processing, including memory and learning.
8. Discuss the neural and hormonal control of sleep, eating behavior, and sexual behavior.
10. Predict the effect certain types of drugs would have on the brain and on behavior.
11. Apply the concepts of lateralization to language.
12. Identify the causes and treatment of neurological disorders and psychological disorders.

c. Evidence in syllabus and textbook:
All chapters covered in the syllabus involve the coverage of knowledge at an introductory level. Specifically:
Chapter 1: Biopsychology as a Neuroscience
   Lab: critical thinking
Chapter 3: Anatomy of the NS
   Lab: sheep brain dissection and coloring book
Chapter 4: Neural Conduction/Synaptic Transmission
   Lab: Neuron Model building; EEG and consciousness research study; S.G. worksheets
Chapter 5: Research Methods
Chapter 6: Visual System
   Lab: S.G. worksheets
Chapter 7: Perception & Awareness
   Lab: S.G. worksheets
Chapter 9: Development of the Nervous System
   Lab: “Genie” case study; Worksheets
Chapter 10: Neuroplasticity
   Lab: EEG & memory research study
Chapter 11: Learning and Memory
   Lab: EEG & memory research study; S.G. worksheets
Chapter 12: Hunger, Eating, and Health
   Lab: Taste demonstration; S.G. worksheets
Chapter 13: Hormones and Sex
   Lab: “Sex Unknown” case study; S.G. worksheets
Chapter 15: Drug Addiction and Reward Circuits
   Lab: drug abuse and addiction simulated lab; S.G. worksheets
II. Additional Criteria that must be met within the context of the course:

A. Stresses understanding of the nature of basic scientific issues.
   a. How course meets spirit:
      Students are taught course competencies 1-12 with an underlying theme that biopsychology is an empirical science. As an empirical science, attempts are made to understand and explain the relationship between the nervous system and behavior and mental processes through the use of various research approaches. The research questions selected for investigation can be influenced by the social, cultural and historical environment, and generally involve a collective effort by many psychologists. As a behavioral science, biopsychology produces explanations about natural world phenomena that are empirically-based, logical, testable, verifiable, creative, theory-laden, durable, tentative, collaborative, and cumulative. Lectures and chapters covered in the course emphasize the nature of these basic scientific issues. Students are also assessed on their understanding of the nature of science (NOS) at the beginning of the course in Lab1: Pre-NOS and again at the end of the semester in Lab 23: Post-NOS.
   d. Course competencies met:
      1. Describe the organization of the nervous system and communication mechanisms within the nervous system.
      2. Compare and contrast brain research methods.
      3. Follow sensory and motor pathways and structures through the nervous system.
      4. Using brain models, identify important structures and circuits.
      5. Hypothesize how nervous system damage would specifically impact behavior.
      6. Explain the development of the nervous system.
      7. Describe the functions of brain areas involved in higher level information processing, including memory and learning.
      8. Discuss the neural and hormonal control of sleep, eating behavior, and sexual behavior.
     10. Predict the effect certain types of drugs would have on the brain and on behavior.
     11. Apply the concepts of lateralization to language.
12. Identify the causes and treatment of neurological disorders and psychological disorders.

e. Evidence in syllabus and textbook:
   All chapters covered in the syllabus involve the coverage of the nature of biopsychological science. Specifically:
   Chapter 1: Biopsychology as a Neuroscience
      Lab: critical thinking; Pre-nature of science measure (Pre-NOS)
   Chapter 3: Anatomy of the NS
      Lab: sheep brain dissection and coloring book
   Chapter 4: Neural Conduction/Synaptic Transmission
      Lab: Neuron Model building; EEG and consciousness research study; S.G. worksheets
   Chapter 5: Research Methods
   Chapter 6: Visual System
      Lab: S.G. worksheets
   Chapter 7: Perception Awareness
      Lab: S.G. worksheets
   Chapter 9: Development of the Nervous System
      Lab: “Genie” case study; S.G. worksheets
   Chapter 10: Neuroplasticity
      Lab: EEG & memory research study
   Chapter 11: Learning and Memory
      Lab: EEG & memory research study; worksheets
   Chapter 12: Hunger, Eating, and Health
      Lab: Taste demonstration; S.G. worksheets
   Chapter 13: Hormones and Sex
      Lab: “Sex Unknown” case study; S.G. worksheets
   Chapter 15: Drug Addiction and Reward Circuits
      Lab: drug abuse and addiction simulated labs; S.G. worksheets
   Chapter 17: Stress and Emotions
      Lab: EKG research experiment; S.G. worksheets
   Chapter 18: Biopsychology of Psychiatric Disorders
      Lab: S.G. worksheets; Post-NOS measures

B. Develops appreciation of the scope and reality of limitations in scientific capabilities.

   a. How course meets spirit:
      Biopsychology research involves three dimensions including:
1. The disadvantages and advantages of using human participants and animal subjects, 2. The difference and connection between applied vs. pure research, and 3. The limitations of using experimental vs. nonexperimental research. Students learn to appreciate that the differences between animal and human nervous systems are potential concerns and limitations that warrant uncertainty in the inferences that can be made from animal samples to the human population. In addition, students realize that although quasi-experimental, correlational, and case study approaches from neuropsychological research lack experimental control, results can converge with findings from well-controlled animal experiments. Strengths and weaknesses of scientific inferences/conclusions are emphasized in regards to the limitations of the particular research design used in all chapters covered in the course.

b. Course competencies met:
1. Describe the organization of the nervous system and communication mechanisms within the nervous system.
2. Compare and contrast brain research methods.
3. Follow sensory and motor pathways and structures through the nervous system.
4. Using brain models, identify important structures and circuits.
5. Hypothesize how nervous system damage would specifically impact behavior.
6. Explain the development of the nervous system.
7. Describe the functions of brain areas involved in higher level information processing, including memory and learning.
8. Discuss the neural and hormonal control of sleep, eating behavior, and sexual behavior.
10. Predict the effect certain types of drugs would have on the brain and on behavior.
11. Apply the concepts of lateralization to language.
12. Identify the causes and treatment of neurological disorders and psychological disorders.

c. Evidence in syllabus and textbook:
All chapters covered in the syllabus involve the coverage of scientific knowledge gained through various research methods and the limitations of inferences made from studies using such methods. Specifically:
Chapter 1: Biopsychology as a Neuroscience Lab: critical thinking
Chapter 3: Anatomy of the NS
Lab: sheep brain dissection and coloring book
Chapter 4: Neural Conduction/Synaptic Transmission
   Lab: Neuron Model building; EEG and consciousness research study; S.G. worksheets
Chapter 5: Research Methods
Chapter 6: Visual System
   Lab: S.G. worksheets
Chapter 7: Perception & Awareness
   Lab: S.G. worksheets
Chapter 9: Development of the Nervous System
   Lab: “Genie” case study; S.G. worksheets
Chapter 10: Neuroplasticity
   Lab: EEG & memory research study
Chapter 11: Learning and Memory
   Lab: EEG & memory research study; S.G. worksheets
Chapter 12: Hunger, Eating, and Health
   Lab: Taste demonstration; S.G. worksheets
Chapter 13: Hormones and Sex
   Lab: “Sex Unknown” case study; S.G. worksheets
Chapter 15: Drug Addiction and Reward Circuits
   Lab: drug abuse and addiction simulated labs; S.G. worksheets
Chapter 17: Stress and Emotions
   Lab: EKG research experiment; S.G. worksheets
Chapter 18: Biopsychology of Psychiatric Disorders
   Lab: S.G. worksheets
Official Course Description: MCCCD Approval: 6-23-09

PSY275 2010 Spring - 9999

Biopsychology

Biological foundations of sensation, perception, motivation, emotion, cognition and psychopathology. Designed for students in the life sciences.
Prerequisites: PSY101 with a grade of "C" or better or permission of Instructor.

MCCCD Official Course Competencies:

PSY275 2010 Spring - 9999  Biopsychology
1. Describe the organization of the nervous system and communication mechanisms within the nervous system. (I)
2. Compare and contrast brain research methods. (I)
3. Follow sensory and motor pathways and structures through the nervous system. (II)
4. Using brain models, identify important structures and circuits. (II, IV, V, VII)
5. Hypothesize how nervous system damage would specifically impact behavior. (III)
6. Explain the development of the nervous system. (III)
7. Describe the functions of brain areas involved in higher level information processing, including memory and learning. (IV)
8. Discuss the neural and hormonal control of sleep, eating behavior, and sexual behavior. (V)
9. Describe brain circuits and structures associated with emotions. (V)
10. Predict the effects certain types of drugs would have on the brain and on behavior. (VI)
11. Apply the concept of lateralization to language. (VII)
12. Identify the causes and treatment of neurological disorders and psychological disorders. (VIII)

MCCCD Official Course Outline:

PSY275 2010 Spring - 9999  Biopsychology
I. Foundations of Biopsychology
   A. Nervous system organization
   B. Neuronal communication
   C. Neuroanatomy
   D. Brain research methods
II. Sensory and Motor Systems
A. Visual system
B. Auditory system
C. Somatosensory systems
D. Chemical sense systems
E. Motor Systems

III. Nervous System Development & Plasticity
A. Prenatal neurodevelopment
B. Postnatal neurodevelopment
C. Neuroplasticity
D. Nervous system damage
E. Treatment of nervous system damage

IV. Cognition
A. Memory
B. Learning

V. Motivation and emotion
A. Hunger and eating
B. Sexual behavior
C. Sleep and dreaming
D. Emotion

VI. Health psychology
A. Psychotropic drugs
B. Stress

VII. Brain Lateralization
A. Split brain
B. Language

VIII. Psychopathology
A. Affective disorders
B. Anxiety disorders
C. Schizophrenia
Biological Psychology (PSY 275; Lecture and Lab)
Spring Semester 2010

Professor: Dr. L. Tran-Nguyen (pronounced Chun-Win)
Office/phone: Psychology building 43 Office C; phone 480-461-7925; lytran@mesacc.edu
Office Hrs: MWF: 9-10; TR: 11:45-12:45
Text: Biopsychology 7th ed.
By John Pinel

Official course description: This course is designed to provide students with a basic understanding of biopsychological concepts including brain anatomy, neural communication, sensation, perception, motivated behaviors, learning and memory, addiction and psychiatric disorder.

In addition to learning new facts, you will be asked to think critically, write clearly, and participate and communicate your ideas. There is a heavy workload, but there are lots of opportunities to demonstrate what you are learning.

Course requirements: Students are responsible for the information contained in all course handouts, including the syllabus and its amendments. Handouts will be passed out once in class. If you miss class, it is your responsibility to make arrangements to obtain missing notes and handouts PRIOR TO THE NEXT CLASS. It is recommended that you exchange phone numbers with three classmates for this purpose. Students must complete all assignments and tests in order to receive a passing grade.

Readings: Students are expected to complete reading assignments prior to the class period for which they are listed. You are responsible for all materials assigned, whether or not it is discussed in class (unless otherwise specified).

Supplies: You will need color pencils for this class. In addition, throughout the semester you may be asked to spend approximately $5-10 on supplies for class projects.

Attendance Policy: Attendance will be taken at every class. Attendance points are incorporated in the lab assignments (see below). I have the option of dropping you from the course if you have excessive absences (3 or more) any time during the semester. If you feel you cannot complete the course, it is YOUR RESPONSIBILITY TO OFFICIALLY WITHDRAWAL yourself from the course. Failure to OFFICIALLY WITHDRAWAL will result in a FAILING GRADE.

Excused absences will be given only for documented school sponsored activities, jury duty, and medical emergencies. A doctor’s appointment is NOT an excused absence. You are aware of our class meeting time so DON’T schedule an appointment during class time.
Special Needs: If you have a disability or a special problem that may affect your learning, please notify me and contact the Disability Resources and Services so that we can make appropriate accommodations (DRS 480-461-7447; bldg 37).

Individual Meetings: I am available during my office hours. If you are unable to meet me during the specified office hours listed above, come talk to me and we can arrange a better time for you. I encourage everyone to take advantage of my office hours so that I may better facilitate your learning needs.

Lab assignments: In-class/outside of class assignments will be given regularly to enhance your understanding of concepts covered in the text and/or class.

Study Guide (SG) Labs: Some labs are constructed to help you study for the upcoming exam and will be due on the day of the exam, BEFORE the exam. SG labs should be completed fully, as accurate as possible, and organized. Labs that are incomplete and/or sloppily done, will receive '0' points. Late labs will be accepted ONLY with a documented excuse as specified in the attendance policy.

Research Labs: You will also have 3 formal lab write-ups that involve the reading of journal articles, data collection, written paper, and oral presentation. More will be discussed in class, but see the attached for general lab write-up format. Formal labs require class presence and participation. YOU WILL NOT BE ABLE TO MAKE UP THE DATA COLLECTION AND PRESENTATION part of the lab unless you have a documented excuse (see attendance policy). These lab write-ups will be graded. Labs turned in late will be lowered one letter grade for each day over the due date.

Grades will be based on the following tentative point distribution:

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Tests (1-5): Tests are an opportunity for feedback as well as evaluation. Tests will cover the lecture material, chapter readings, and handouts. It will consist of multiple choice questions, true/false, fill-in the blanks, and short essays. Students are responsible for
going over the answers, identifying their errors, and understanding what answer was expected and why. You will need to come to my office during office hours to examine your test.

**Make-up Test Policy:** Missed tests can only be made up for documented excuses if arrangements are made with the instructor PRIOR to the exam date, except with proof of medical emergency. All make-up exams are given during Final exam week.

* TENTATIVE Schedule: The instructor reserves the right to add, delete, or change this list. Any changes will be announced in class.

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Pre-NOS = pretest on the Nature of Science
SG. Worksheet = study guide worksheets
Post-NOS = posttest on the Nature of Science
To: Dr. L. T. L Tran-Nguyen  
Professor, Mesa Community College

Name:

Phone number:

Email:

Name and number of person to contact in case of emergency:

Year in school and major:

Career goals:

Additional MCC policies:

**MCC Early Alert Program (EARS):** Please note the following quote from MCC’s administration: “Mesa Community College is committed to the success of all our students. Numerous campus support services are available throughout your academic journey to assist you in achieving your educational goals. MCC has adopted an Early Alert Referral System (EARS) as part of a student success initiative to aid students in their educational pursuits. Faculty and Staff participate by alerting and referring students to campus services for added support. Students may receive a follow up call from various campus services as a result of being referred to EARS. Students are encouraged to participate, but these services are optional. Early Alert Web Page with Campus Resource Information can be located at: http://www.mesacc.edu/students/ears.”

**MCC Refund Policy:** Please note the important change in refund policy as quoted from the Spring 2010 schedule: “You can drop or add classes to your schedule anytime during the registration period listed in the calendar at the beginning of this class schedule. If you add a class and then decide you don’t want to attend the class, you must withdrawal from the class during the refund period or you will be charged full tuition and fees.”

I have read the syllabus, and understand the policies:

1. I understand that absences will affect my final grade. I am responsible for obtaining lecture notes, handouts, and assignments resulting from my absence PRIOR to the next class meeting from one of my classmates that I have exchanged phone numbers.

2. I understand that assignments not turned in on the scheduled due date will be lowered one letter grade for each subsequent day overdue.

3. I understand that I must notify my instructor if I must miss a test PRIOR to the scheduled date and that the make-up test for non-excused absences will be given during the last day of class as the make-up test.

4. I understand it is a good idea to keep a photocopy of all my assignments until I receive my final grade.

My signature confirms that I agree to abide by the course policies:

Signature: ___________________________  
Semester: ___________________________  
Course: ___________________________
Lab Write-up Instructions

Objective: to understand the information that should be contained in the Lab report.

A. Introduction and hypothesis. Read the assigned journal article for the lab. Using your own words, briefly summarize the research hypothesis, method and major findings in the study. This summary should be no more than 200 words. Using the findings from this journal article, develop a research hypothesis for the present lab proposal.

B. Methods: Your Method section should include the following subsections:
1. Participants, 2. Materials, and 3. Procedures. After reading your Methods section, one should be able to replicate your experiment. The following describes the details that should be included in each of these subsections.

Participants:
-who you studied and their characteristics
  -gender, mean age, race/ethnicity and any pertinent characteristics of the sample
- how many took part in the study

Materials
-any materials needed to replicate your experiment
-describe non-standard materials
-if use questionnaire:
  -briefly describe type of questions, scale used, what high vs. low score on your questionnaire reflects in terms of the variable being measured
  -should include questionnaire used in study and refer to the appendix within the text

Procedure
-chronological description of how study was conducted (includes any specific instructions given to participants)
-describe how participants were assigned to groups (if you had separate groups)

C. Results. Your results should include the data collection sheet, graph(s) and the verbal description of your findings. Finally, a concluding statement should indicate whether the data are in the direction of your research hypothesis.

D. Reference. APA format for journal articles:

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**Part One**

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