COURSE: SEMESTER: INSTRUCTOR: Anne
E-MAIL: PHONE: CLASS TIME: ROOM: OFFICE HOURS:

ALL STUDENTS MUST HAVE ACCESS TO WEBCAMPUS FOR THIS CLASS AND REGISTER FOR AN FDU E-MAIL ACCOUNT

COURSE DESCRIPTION:

This course serves as an Introduction to the anatomy and physiology of the human nervous system. The emphasis is on sensorimotor and higher order functions and dysfunctions basic to understanding school learning problems and the effects of handicapping conditions on the atypical learner.

A. NJPST Standards: Standards available at

http://www.state.nj.us/njded/profdev/profstand/standards.pdf


ESSENTIAL QUESTIONS/COURSE OBJECTIVES:

1. Gain a basic working knowledge of biopsychology, covering:
   - Brain structure and nerve cells
   - Sensation and sensorimotor functions
   - Neural development and neuroplasticity
   - Cognition and motivation
   - Neuropsychological and psychiatric disorders

2. Improve your higher-order thinking skills, including:
   - Analyzing and synthesizing information
   - Interpreting results in biopsychology

3. Develop skills for acquiring information from the Internet by:
   - Searching for websites related to biopsychology
   - Searching for research articles in biopsychology

4. Develop an appreciation for how biopsychology impacts upon your daily life

REQUIRED TEXT:

**RECOMMENDED TEXT:**

**SCHEDULE/OUTLINE: This schedule is subject to change**

<table>
<thead>
<tr>
<th>Session/Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment/Performance Task</th>
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</table>
| 1.           | *Introduction to Biopsychology*  
*Introduction to course*  
- Discuss Syllabus  
- Roots of Biopsychology | Chapter 1 | |
| 2.           | *The Anatomy of the Brain*  
- Nervous system overview  
- Detail brain regions | Chapter 2 | |
| 3.           | *Neural Activity and How to Study It*  
- Neurophysiology basics  
- Chemical neurotransmission | Chapter 3 | |
| 4.           | *The Visual System*  
- Retina and lateral geniculate  
- Visual cortex | Chapter 4 | Exam #1 (Posted on 2/16/11 @ 8:00am and due 2/19/11 by 11:55pm) |
| 5.           | *Mechanisms of Perception*  
- Principles of perception  
- Hearing, touch, smell, and taste | Chapter 5 | |
| 6.           | *The Sensorimotor System*  
- The spinal cord  
- Motor cortex, basal ganglia, and cerebellum | Chapter 6 | |
|              | *Development of the Nervous System*  
- Fertilization to birth  
- Neurogenesis | Chapter 7 | |
| 8.           | *Brain Damage and Neuroplasticity*  
- Brain injury and tumors  
- Neurodegenerative diseases | Chapter 8 | Exam #2 (Posted on 3/24/11 at 8:00am and due on 3/27/11 by 11:55pm) |
| 9.           | *Learning, Memory, and Amnesia*  
- Synaptic plasticity and long-term potentiation (LTP)  
- Amnesia disorders | Chapter 9 | |
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<thead>
<tr>
<th></th>
<th>Chapter 14</th>
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<th>Chapter 15</th>
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</table>
| 10. | **Laterlization, Language, and the Split Brain**  
- Hemispheric differences  
- Split-brain subjects |   | **Exam #3 (Posted on 4/13/11 at 8:00am and due by 4/17/11 @ 11:55pm)** |   |
| 11. | **Behavioral Neuroscience of Psychiatric Disorders**  
- Schizophrenia & affective disorders  
- Anxiety and psychiatric drugs |   |   |   |
| 12. | **Sleep, Dreaming, and Circadian**  
- EEG waves and sleep  
- Suprachiasmatic nucleus |   |   |   |
| 13. | **Hunger, Eating, and Health**  
- Physiology of hunger  
- Eating disorders |   |   |   |
| 14. | **Hormones and Sex**  
- Neuroendocrinology  
- Genotype versus phenotype |   |   |   |
| 15. | **Health Psychology, Addiction, Emotion, and Stress**  
- Addictive drugs  
- Theories of emotion |   | **Exam #4 (Posted on 5/12/11 @ 8:00am and due by 5/15/11 @ 11:59)** |   |

**ASSIGNMENTS:**

1. **Exams** – You will complete four exams over the course of the semester primarily multiple choice in nature (may have some short answer) (80% total)  
   a. 1<sup>st</sup> Exam (20%) – On-line  
   b. 2<sup>nd</sup> Exam (20%) – On-line  
   c. 3<sup>rd</sup> Exam (20%) – On-line  
   d. 4<sup>th</sup> Exam (20%) – On-line

2. **Class Presentation** on a disorder of your choice (with approval) via PowerPoint or equivalent (20 minutes); you are expected to review a medical and/or learning disorder that impacts learning (i.e., what is it), how is the brain involved, how does it impact daily functioning, and how does it impact emotional functioning (e.g., Dyslexia, Math Disability, Epilepsy) (20%). After the presentation, you will have summary of your ability to teach the information including an assessment of strengths and weakness as well as a brief explanation of your own learning style and how you prepared and approached the presentation. You are also asked to write one exam question based on your presentation to be included in next exam. **Class presentation should be e-mailed to Farraran@fdu.edu by 12:00pm (noon) on date you are scheduled.**
3. You are expected to attend all classes; you are allowed to miss one class (although you need to inform professor via email prior to class time – unless emergency and then within 24 hours after missed class). See attendance policy noted below for more information. If you require any absences due to religious or other specific reason please inform professor via e-mail within 2 weeks of start of the semester.

4. Students are strongly advised to read text assignments prior to lecture. Class will primarily be lecture in nature with some class discussions. Lectures will be posted on blackboard by midnight the night before class; you are responsible for printing out the slides on your own and bringing them to class. Laptops will be allowed for note taking; however, if they are being used for any other use during class time, you will no longer be able to bring to class.

**FINAL GRADING:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>94% - 100%</td>
</tr>
<tr>
<td>A-</td>
<td>90% - 93%</td>
</tr>
<tr>
<td>B+</td>
<td>87% - 89%</td>
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<tr>
<td>B</td>
<td>84% - 86%</td>
</tr>
<tr>
<td>B-</td>
<td>80% - 83%</td>
</tr>
<tr>
<td>C+</td>
<td>77% - 79%</td>
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<tr>
<td>C</td>
<td>74% - 76%</td>
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<tr>
<td>F</td>
<td>Below 73%</td>
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<tr>
<td>I</td>
<td>Incomplete</td>
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I - Incomplete - this designation is not a substitute for a letter grade. It merely describes a student's temporary status in a course. It is to be given only in exceptional or emergency circumstances at the discretion of, and after consultation with, the instructor. Students have a responsibility to notify the instructor of circumstances preventing them from completing the requirements on time. Students will have up to the third week of the next full semester (excluding summer sessions) to complete the requirements. If the requirements have not been met within the prescribed period, the I automatically will become an F. The F is a letter grade and will count in the student's CGPA. (FDU, 2002, p.14)

If you have any concerns over a grade you earned on any paper or classroom assignment please set up an individual appointment with the professor within ONE week after receiving your grade.

**ATTENDANCE:**

1. Students are required to attend class, arrive on time and participate in all courses for which they are enrolled. Class attendance and participation are essential to academic progress. Individual instructors may include class participation in the determination of the final grade. Each instructor will announce his or her grading policies at the beginning of the semester in each course, making clear the weight to be given to participation in grade determination. (FDU, 2002, p.13)

2. The School of Education's Policy Committee met and established the following policy for attendance:
   1. Attendance is required in all our classes
   2. 3 absences, grade drops by a half a grade
   3. 4 absences, grade drops by one full grade
4. 5 absences, the student fails or withdraws from the class

**RESPECT FOR DIVERSITY:**

It is my intent to present material and activities that are respectful of diversity. It is also my intent that students from all perspectives and diverse backgrounds be well-served by this course, that students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. Your suggestions about how to improve the value of diversity in this course are encouraged and appreciated. If you have any concerns, questions, or come across a dilemma, please contact the instructor.

**INCLEMENT WEATHER:**

Check your Fairleigh Dickinson University website and email. Exercise caution and use good judgment when driving conditions are dangerous.

**ACADEMIC INTEGRITY AND DISHONESTY:**

1. Fairleigh Dickinson University will not condone academic dishonesty in any form. To do so would be unfair to those students who perform honestly. Academic dishonesty undermines the confidence of the student in his or her ability to learn and perform and casts a shadow on the value of the academic process, past and future (FDU, 1966, p. 5).

2. Students enrolled at Fairleigh Dickinson University are expected to maintain the highest standards of academic honesty. Students have the responsibility to each other to make known the existence of academic dishonesty to their course instructor, and then, if necessary, the department chairperson or the academic dean of their College. Course instructors have the added responsibility to state in advance in their syllabi any special policies and procedures concerning examinations and other academic exercises specific to their courses. Students should request this information if not distributed by the instructor (FDU, 2002, p. 15).

3. Student using online resources for their work are expected to provide appropriate citations and references – American Psychological Association, Publication Manual, 5th Edition.

**STATEMENT OF DISABILITIES:**

- The University attempts to meet the needs of all students with special needs. The Office of the Dean of Students coordinates, through appropriate campus offices, services that would provide reasonable accommodations for students with special needs.

- *If you have a documented disability and would like to discuss academic accommodations, you must inform the professor by the end of the second class.*

**INSTRUCTOR-SPECIFIC POLICIES:**

This syllabus is subject to change as the need arises. Students will be given ample notice of any changes in assignments and due dates.

**REFERENCES:**