

**Psyc 106  
Summer Session II 2013  
List of all study questions for Midterm 1.**

**Two of the following will be on the exam. Be sure to address ALL PARTS of the questions. Each essay is worth the equivalent of 10 multiple-choice questions. YOUR ANSWERS WILL BE GRADED SUBJECTIVELY. FOR FULL CREDIT, BE THOROUGH AND EXPLAIN WELL. USE COMPLETE SENTENCES. GIVE EXAMPLES WHEREVER POSSIBLE. IN OTHER WORDS, *SHOW OFF* YOUR KNOWLEDGE. Do not try to provide a minimal answer.**

- 1. Along what dimensions can the nervous system be *usefully* divided into smaller units, either functionally (i.e., in terms of how things work) or structurally (i.e., in terms of how it is built)?**
- 2. Why and how does Nadine Burke use assessments of adverse childhood experiences (ACEs) in her San Francisco medical clinic?**
- 3. What features of a neuron allow it to have a negative resting potential? Why, if you stimulate the middle of an axon, will an AP travel in both directions? Why, under normal circumstances, does an AP not travel backwards? Why don't dendrites typically use APs?**
- 4. At what sites in or around the synapse might a new drug "Y" alter neurotransmission and how?**
- 5. How does the study of heroin addicts support the idea that drugs simultaneously affect multiple brain systems that underlie our feelings and behavior?**
- 6. What factors affect how much a person responds to a given amount of a drug on any one occasion?**
- 7. Evaluate the statement that "having a gene for behavior X means that it is inevitable a person will exhibit behavior X."**
- 8. Describe a number of developmental processes that might influence how large a neural structure is in adulthood.**
- 9. What factors influence the behavioral/cognitive outcome of a neurological injury? Give as many different kinds of answers as possible.**
- 10. Define "receptive fields." How are they assessed? From this and other lectures, give several examples from different senses. Include peripheral and cortical sites.**

**11. Give several examples of how an auditory perception is derived from physical aspects of pressure waves.**

**12. From this and other lectures, give several examples of “top-down” influences on sensory processing.**

**13. How does the brain reorganize in relation to sensory stimulation?**

**14. Describe the interaction of sensory neurons, interneurons and motor components in simple reflexes (i.e., knee-jerk). What additional factors contribute to more complex motor programs?**

**15. What is Parkinson's disease? What treatments are there for it and what are their strengths/weaknesses?**