PSY146S  FUNCTIONAL ANATOMY OF THE HUMAN BRAIN
S. Mark Williams, Ph.D.

Fall 2005
Wednesdays/Fridays 8:30–9:45 AM
GSRB II 3002

Contact Information
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Course Overview
This course provides a broad overview of the structure of the human brain and spinal cord. Through examination of actual clinical cases representing a variety of neurological disorders and lesions, as well as use of interactive brain atlas and reference tools, students will learn the gross anatomy of the central nervous system. The organization of the major neural systems underlying sensory, motor and cognitive function will be emphasized.

After an introduction to the organization of the nervous system, each week we will examine the functional anatomy of a particular region (or set of structures) of the central nervous system. A lecture on the anatomy of the region will be followed by an examination of relevant clinical cases (found at the end of each chapter of the primary text). The goal of this course is not to train you as neurologists or neuropathologists but instead to use clinical cases to illustrate the principles of neuroanatomy.

Resources

• Primary text: Neuroanatomy through Clinical Cases, H. Blumenfeld (Sinauer Associates, Inc., Sunderland, MA)

• Secondary text: Neuroscience, 3rd edition; Purves, Augustine, Fitzpatrick, Hall, LaMantia, McNamara, & Williams

• Course web site (http://neurobiology.mc.duke.edu/psy146/)

• Lecture and Lab Manual PDFs – downloadable from website

• Clinical case reports (in Blumenfeld)

• Web application: Interactive neuroanatomy quick reference tool: SylviusVG: Visual Glossary of Human Neuroanatomy

  http://www.sylvius.com/sylvius/VG/web
user (email): psy146
pwd:

- Interactive brain atlas: *SylviusPRO: 3D Dissector and Atlas of the Human Central Nervous System*
  
  [http://neurobiology.mc.duke.edu/sylvius/PRO/duke/](http://neurobiology.mc.duke.edu/sylvius/PRO/duke/)

- Special edition of SylviusVG ....

**What you need:**

- Primary text
- Secondary text (recommended)
- Web access
- PC to download and run SylviusPRO; Win or Mac

**Grading**

- Exam No. 1 (Friday, Sept 23) 20%
- Exam No. 2 (Friday, November 04) 25%
- Final Exam 35%
- Exercises, case presentations and class participation 20%

**Exam Format:** The exams will comprise both objective style questions (e.g. multiple choice, matching etc) and short essay. Exam No. 1 will consist primarily of neuroanatomical structure identification; Exam 2 and the final exam will probe your understanding of the organization of neural systems. Some of the questions will require you to evaluate clinical cases and locate the site of the lesion. The final exam will be considered cumulative, although with significant emphasis on the more recent material.

**Exercises:** Prior to a lecture, you will be given a short exercise to complete, e.g. use the digital brain atlas to answer a series of simple questions. Each exercise is to be completed without the assistance of others and turned in at the beginning of class. First exercise will be distributed Fri Sept 2 and due at the beginning of class Wed Sept 7.

**Case Presentations:** You will work with a partner (assignments forthcoming) to work up a case from the Blumenfeld book. Although the cases are ‘solved’ in the text, you and your partner will present and explain the case to the class.

**Class Participation:** Attendance is not mandatory, but success in this course clearly depends on attending all sessions as well as on the preparation prior to class and a commitment to mastering the material.
How to Succeed in PSY146:
- Read and prepare for class
- Practice and drill, using digital resources and other methods
- Do NOT get behind
- Practice and drill
- Practice and drill
08.31.05

Signature request:

On my honor, I will not distribute (either electronically or in analogue form) any course materials used in PSY146 including lecture presentation files, lab manual chapters, images, or software applications, nor provide others not currently enrolled in the course with passwords or URLs for accessing such materials.

Print name:
___________________________________________________________

Contact info:

(H) phone: ________________________

(C) phone: ________________________