# SYLLABUS 2014 11/14/13

### DPT AND GRADUATE NEUROANATOMY

CRN's: Allied Health ANAT414, 17751 and 17752. Graduate, ANAT403, 17749 and 17750; NEUS403, 23499, 23500.

Spring Semester annually. January 6, 2014 – March 7, 2014. Credit Hours: 3 semester hours.

Location: Lectures usually in Eye and Ear infirmary auditorium (EEI AUD), enter front doors and take first left hallway to auditorium. (Be respectful of patients). Laboratories on 5<sup>th</sup> floor MSB.

Course Directors: Conwell H. Anderson, PhD, <u>Conwell@uic.edu</u>, 312-996-3360. 522A CMW. James R. Unnerstall, PhD, <u>jru@uic.edu</u>, 312-996-7513. 512 CMW.

Office hrs.Dr. Anderson, an open door, and/or 2:00-4:00 daily. Dr. Unnerstall, arrange by email.

Additional Lecturers: Anna Lysakowski, alysakow@uic.edu, 312-996-5990, 6055 COMRB.

Orly Lazarov, olazarov@uic.edu, 312-355-0548, 7053 COMRB.

Kamal Sharma, kamalsha@uic.edu, 312-413-0072, 666 CME.

Jonathan Art, jart@uic.edu, 312-996-4956, 514 CMW.

Blackboard site link: https://blackboard.uic.edu/webapps/login/

Web Site link: <u>http://tigger.uic.edu/classes/anat/anat403/</u>

Required Texts are available at the Health Sciences Book Store. D. Purves et al, <u>Neuroscience</u>, 5<sup>th</sup> ed, Sinauer. D. E. Haines, <u>Neuroanatomy</u>, <u>An Atlas of Structures Sections</u>, and <u>Systems</u>, 8<sup>th</sup> Ed, Lippincott Williams and Wilkins. Recommended for the semester break: D. J. Gould and J. K. Brueckner, <u>Sidman's</u> Neuroanatomy, A Programmed Learning Tool, 2<sup>nd</sup> Ed, Lippincott, Williams and Wilkins.

Other Required Purchases: synthetic gloves, access the Lab Manual at the Blackboard or web sites.

Goals and Competencies:

- \_ Identify major landmarks of the CNS and correlate them with function.
- \_ Identify the arteries and patterns of vascularization of the CNS.
- \_ Discriminate the relationships of the CNS to its bony and membranous capsules and the CSF.
- Compare the reparative response of the CNS and PNS to injury and identify the role of neurotrophic substances.
- \_ Explain the relationship of sensory and motor nerves to the CNS.
- \_ Draw the anatomical organization of sensory systems.
- \_ Describe the organization of the CNS as a motor effector and the proposed roles of the component parts.
- \_ Differentiate the signs of strokes in cerebral cortex, internal capsule, brain stem and spinal cord.

# \_ Describe the basic structural stages of the development of the CNS.

Synopsis of the course and learning methods provided:

Neuroanatomy builds on what was learned in gross anatomy, e.g. cranial nerve functions and the vascular tree. The directed learning prepares students to understand the basis of reflexes elicited in a neurological examination, and, when the brain is damaged, the combination of deficits that may occur because functions are processed in close proximity to each other (e.g. they may share a common blood supply). We introduce some of the strategies being developed to aid in recovery from nervous system disorders.

Laboratories are an integral part of the course and of the examinations. You are expected to work together to identify structures and to answer questions in the lab manual. The brains have been gifted by a previous generation so that you may be better prepared to treat your patients and/or explore the frontiers of neuroscience. You are expected to treat them with appropriate respect.

The web site has a number of learning modules, and you should explore the site before the course begins. Some of the tools will be recommended to you by email later in the course, but to start, you should access the "lectures and labs" links and click on lecture titles which will reveal the points to remember, as well as a few questions. We do not provide the answers, since knowing how to look up reliable answers is a part of your professional training.

Attendance Policy: We expect you to attend the laboratory sessions, at which time there is ample help available.

Grading Policy: Jan  $31^{st}$  Midterm written Exam =1/3 grade. Final Lab exam,Feb  $28^{th}$  =1/3 and, Final comprehensive written, March 7=1/3. The final laboratory examination is fill in the blank, not multiple choice.

Lectures will be recorded, with the following exceptions:

The College policy: The intent of the lecture recordings is to augment your learning: to allow self-review after attending a lecture in order to fill in any areas that may have been missed during the session. The decision to record a lecture rests with the individual instructor. As much notice as possible will be given when a lecture is not going to be recorded, however this cannot always be assured. In addition, there is always the possibility of technical problems which can result in the loss of the recorded material. The only way to be absolutely certain that you will be able to see every lecture presented by the College is to attend the live session in person.

Lecture recordings, notes, handouts, displays and any other material are protected by state common law and federal copyright law. You may not copy this material, provide copies of it to anyone else, or make any other use other than personal review without prior permission from the faculty member. This is a professionalism issue as well as a legal issue.

Course Evaluation: Completion of the course evaluation is greatly appreciated.

**Professional Behavior:** You are expected to be aware of the College statements of expectations of your professionalism. Available at: <a href="http://chicago.medicine.uic.edu/departments\_programs/program\_offices/undergraduate\_medical\_education/policiessylprofessional\_behavior/">http://chicago.medicine.uic.edu/departments\_programs/program\_offices/undergraduate\_medical\_education/policiessylprofessional\_behavior/</a>

Academic Integrity Policy: Includes, but is not limited to:

- 1. Cheating
- 2. Fabricating

- 3. Facilitating academic dishonesty/plagiarism
- 4. Offering bribes, favors or threats
- 5. Taking an examination by proxy
- 6. Grade tampering
- 7. Submitting non-original works

#### See also the UIC Student Disciplinary Policy at:

Http://www.chicago.medicine.uic.edu/student\_services/osa/policies\_and\_procedures/

Meeting times:

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http://tigger.uic.edu/classes/anat/anat403/					
DA'	<b>FE/DAY TIM</b>	Ε	TITLE Purves&Atlas Inst	:r**	
1.	Jan6/Mon	9:30	Announcements,Cell Bio <b>pg 4-10,ch7</b> c	ha/ol	
2.	Jan6/Mon	10:30	GrossCNS/vessels/CSF <u>pgs717-20,735-44</u> c Haines pg23,56,66	ha	
	Jan6/Mon 1:30		LAB I: Vessels and nerves(Rm E521 MSB)		
3.	Jan9/Thr	9:30	Brain stem, reticular pg 390-2, 720-8	cha	
4.	Jan9/Thr	10:30	Morphogenesis Ch 22,pg744, Haines184	al	
	Jan9/Thr 1:30 LAB II: Gyri				
5.	Jan13/Mon	9:30	Cerebral Cortex/Thalamus pg587-90,728-33 Haines 273-5	ol	
6.	Jan15/Wed	9:30	Somatosensory I Ch9, Haines pg188, 198	jru	
	Jan 17/F	'ri 1:30 LAB	III: Mid-sagittal Section		
7.	Jan21/Tue	9:30	Somatosensory 2:Pain <u>ch 10,</u> Hairag 192 198	jru	
8.	Jan22/Wed	9:30	Plasticity: Injury & Neurogenesis <u>Ch 24</u>	ol	
Jan24/Fri 1:30 LABS IV and V: Horizontal and coronal sections					
9.	Jan27/Mon	9:30	Visual pathways Haines pg244-9	cha	
10.	. Jan29/Wed jja	9:30	Auditory system Ch 13, Haines pg 26	6	
Jan 31/FRIDAY 1:30-3:20 MIDTERM EXAM Lectures 1-8, Labs 1-5(505MSB)					
11.	Feb 3/Mon	9:30	Motor 1 LMN/UMN Ch 16 and 17, Haines206&250	cha	
12.	. Feb3/Mon	10:30	Motor 2 Basal Ganglia Ch 18 Haines 234-241?	cha	
13.	. Feb5/Wed	9:00-10:20	Vestibular&Motor eye ch14 &20, Haines pg268	al	
Feb 7/Fri 1:30 LAB VI: Imaging					

14. Feb10/Mon 9:30 Cerebellum & extrapyramidal Ch19 Haines pg240-5,214-6 al 15. Feb12/Wed 9:30 Special senses,7,9,10 Ch 15, Haines pg202 al Feb 14/Fri 1:30 LAB VII: pro-section 16. Feb17/Mon 9:00-10:20 Limbic System I 599-603, 703-10, Ch29 ks 17. Feb19/Wed 9:30 Limbic System II <u>456-8, Haines 284-7</u> Feb 21/Fri 1:30 LAB VIII: Case Studies in Room 106 CMW. Feb 26/Wed 9:30 Review Session Room EEI Aud

### Feb 28, Friday 1:30 Laboratory Examination

#### March 7, Friday 1:30-3:20 Final, Comprehensive written Examination, Lab Rooms, 505 MSB.

Instructors: cha=C. Anderson, ol=O. Lazarov, al=A. Lysakowski, jru=J. Unnerstall, jja=J. Art, ks=Kamal Sharma