SYLLABUS 2014 11/14/13

MEDICAL NEUROANATOMY

CRN's: Medical BMS 647, 14231. Allied Health ANAT414, 17751 and 17752. Graduate, ANAT403, 17749 and 17750; NEUS403, 23499, 23500.

Spring Semester annually. January 6, 2014 – April 1, 2014. Credit Hours: 3 semester hours.

Location: Lectures in room EEI auditorium. Laboratories on 5th floor MSB.

Course Directors: Conwell H. Anderson, PhD, Conwell@uic.edu, 312-996-3360. 522A CMW. James R. Unnerstall, PhD, jru@uic.edu, 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, 312-996-0402, 666CME.

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

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

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

Required Texts are available at the Health Sciences Book Store. D. Purves, et al, Neuroscience, 5th ed., Sinauer press. D. E. Haines, Neuroanatomy, An Atlas of Structures Sections, and Systems, 8th Ed, Lippincott Williams and Wilkins. Recommended for the semester break: D. J. Gould and J. K. Brueckner, Sidman's Neuroanatomy, A Programmed Learning Tool, 2nd 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 is integrated with the teaching of gross anatomy, e.g. cranial nerve functions, and with Neurophysiology and Brain and Behavior. Therefore, the material should be learned from all the lectures for these courses, not as separate entities. The directed learning in Neuroanatomy 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. As you experienced in Gross and Tissue courses, your groups of 6 students are as arranged by the College. If you are not preparing a peer effort for gross anatomy, then the rest of the group of 6 should be in the neuroanatomy labs. Therefore, the entire group of 6 will attend the first and last(8^{th}) labs sessions. We have faculty, M-4's, residents, and graduate students available to help you explore the anatomical relationships of structures in the brain. 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, when not doing a gross dissection, at which time there is ample help available. You will peer teach the other member of your group.

Grading Policy: Feb 10^{th} Midterm MCQ Exam=1/3 grade. March 31^{st}, Final MCQ=1/3. Final Lab Exam=1/3. The final laboratory examination is fill in the blank, not multiple choice.

Lectures will be recorded, with the following exceptions:
Policy:http://chicago.medicine.uic.edu/departments_programs/program_offices/undergraduate_medical_education/current_students/policies_and_emergency_information/lecture_recording_policy/

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 a professional expectation of all students. This is a requirement for successful completion of this course.

Professional Behavior: You are expected to be aware of the College statements of expectations of your professionalism. Available at:
http://chicago.medicine.uic.edu/departments___programs/program_offices/undergraduate_medical_education/current_students/policies_and_emergency_information/professional_behavior/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, book references, and *1st Aid USMLE* references:

MEDICAL NEUROANATOMY 2014 (BMS 647) 11/18/13

http://tigger.uic.edu/classes/anat/anat403/

	DATE/DAY	TIME	TITLE	Purves&Atlas	**Instr	*1stAid*
1.	Jan6/Mon	1:30	Introduce Neuroanatomy	**pg4-10,ch7**	cha	
2.	Jan7/Tue	11:30	Gross CNS/blood/csf	**pg717-720 Pg735-744**	cha	*413,*
				Haines pg23,56,66		*420,4,6*
	Jan 7/Tue 1:30 *LAB I: Vessels and nerves (All M-1's)*					*432-5*
3.	Jan14/Tue	9:30	Morphogenesis	**ch22,pg744,Haines 184**	al	*408-12*
4.	Jan14/Tue	10:30	Brain Stem, Reticular	**pg720-8,390-2**	cha	*413*
5.	Jan14/Tue	11:30	Reaction Injury & Neurogenesis	**ch 25**	ol	
6.	**Jan16/Thr**	**9:30-11:20**	Cerebral Cortex/Thalamus	**pg587-90,728-33**	ol	*415-18*
				Haines 273-5		
	Jan 16/Thr 1:30 *LAB II: Gyri*					
7.	Jan 23/Thr	**10:30-12:20**	visual pathwys,lesions	**pg229-30,233,Ross ch24**	cha	
	Jan23/Thr 1:30 *LAB III: Midsagittal Section*					*437-41*
8.	Jan 30/Thr	9:30	SS III/trigeminal & lesions	**Haines 188-198**	jru	*427-8*
9.	Jan30/Thr	**10:30-12:20**	Auditory System	**ch 13, Haines pg266**	jja	
	Jan30/Thr 1:30 Lab IV: Horizontal sections					
Note: apply the sensory system physiology lects to Neuroanatomy!						
10.	Feb4/Tue	**9:30-11:20**	Vestibular System-motor eye	**ch 14 &Ch 20**	al	*439*
				Haines pg 268		
11.	Feb6/Thr	**10:30-12:20**	Chemical senses,7,9,10	**ch 15,Haines202**	al	

REVIEW Feb 7/Fri 1:30-3:20.

FEB 10/Monday MIDTERM NEUROANATOMY(lects 1-11, labs 1-4) AND NEUROPHYSIOLOGY

Feb 11/Tue 3:00 Lab V: Coronal sections

Feb 18/Tue 2:30 Lab VI: Imaging

12.**** Feb 20/Thr 11:30 Clin. Correl.PAIN – Charles Laurito,MD **Haines pg195**

Feb20/Thr 1:30 Lab VII: pro-section

Note: you need to apply the 5 Motor lectures in physiology to Neuroanatomy as well. **Chs 18 & 19, Haines 207,250-5** *415-16*

13. Feb 25/Tue 11:30 Anatomy motor pthwys and lesions cha *437*

Feb 25/Tue 1:30 Lab VIII: Case Studies (all M-1's attend) *419,22,30*

14. Feb27/Thr **10:30-12:20** Limbic System I **599-603, 703-10, Ch29.** ks **Haines 276-9,206-9**

15. Mar5/Wed 10:30 **L**imbic System II **456-8, Haines 284-7** ks *414-15*

March 17/Monday 10:30 and 11:30 FINAL LABORATORY EXAMINATION

March 27/Thursday 8:30 THREE (3) HOUR REVIEW

March 31/Monday Morning FINAL MCQ, CBT EXAMINATION