

**INVESTIGATIVE NEUROSCIENCE (NEURO 203/NRSC 201)
LECTURE SCHEDULE – Ver 10.8 as of 12 SEPTEMBER 2018**

LSU Neuroscience Center Large Conference Room 835 (8th Floor)
Lion Eye Center Building, 2020 Gravier Street, New Orleans LA 70112 USA
Tuesdays & Thursdays – 2 - 4 PM (exceptions as indicated)
Course Director: **Walter J. Lukiw, BS, MS, PhD**
Neuroscience Center and Departments of Neurology and Ophthalmology
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- **Overview:** 23 two-hour lectures by leading experts in the field on neuroscience with emphasis on brain and visual structure and function, technical approaches to research, and brain and visual pathology
- **Grade Evaluation:** one preliminary examination (30%); one research topic paper (30%); one final exam (40%); details will be given in first class meeting 08/16/2018
- **Textbooks** (Note that individual lecturers may assign specific scientific journal articles, or specific chapters from the three texts listed below, or other texts, for review prior to class, disseminated by email as .pdf files):
 - [1] *Basic Neurochemistry, Principles of Molecular, Cellular, and Medical Neurobiology, 8th Edition, 2011* (editors Brady, Siegel, Albers, Price);
 - [2] *Principles of Neural Science, 5th Edition, 2012*, (editors Kandel, Schwartz, Jessel, Siegelbaum, Hudspeth;
 - [3] *Molecular Biology of the Cell, 6th Edition, 2015*; (editors Alberts, Johnson, Lewis, Morgan, Raff, Roberts, Walter)

SCHEDULE

DATE	TOPIC	LECTURER
08/16	First Class Meeting, introduction to NEURO 203 and course overview	Dr. WJ Lukiw
08/21	Overview of the nervous system	Dr. T. Weyand
08/22	Experimental design and statistics	Dr. Z. Fang
(Note Time Change 2:00-4:00 pm 08/22 only for Dr. Fang's lecture)		
08/28	The development of nervous system	Dr. C. Wu
08/30	Electrotonic properties, membrane potential and action potential	Dr. S. Gasparini
(Note Time Change 2:30-4:30 pm today only for Dr. Gasparini's lecture)		
09/04	Synaptic (chemical) transmission and synaptic plasticity	Dr. J. Erickson
09/06	Synaptic transmission and synaptic integration	Dr. X. Tian
09/11	Receptors and non-classic signaling	Dr. C. Chen
09/13	Apoptosis/necrosis/signal transduction/neurovascular unit	Dr. NG Bazan
09/18	Overview of neuronal circuits: construction of a receptive field	Dr. T. Weyand
(Note Time Change 2:30-4:30 pm today only for Dr. Weyand's lecture)		
09/20	Regulation of gene expression	Dr. J. Erickson
09/25	Preliminary examination (first 11 lectures; 30% of grade)	
09/25	List of 'Neuroscience Research Topics' handed out (each student writes a 3-page research paper)	
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09/27	Gene expression in neurons/Alzheimer's disease	Dr. W.J. Lukiw
10/02	Neuroplasticity and vocal behavior (note switch with Dr. Song Hong)	Dr. XiaoChing Li
10/04	Visual system pathology/inflammation (note switch with Dr. M. Jin)	Dr. H.E. Bazan
10/09	Auditory system I	Dr. H. Farris
(Note Time Change 12:30 pm-2:30 pm today only for Dr. H. Farris' lecture)		
10/11	Auditory System II	Dr. J. Lentz
10/16	Motor system	Dr. T. Weyand
10/18	Visual System I	Dr. Song Hong
10/23	Visual system II	Dr. M. Jin
10/25	Epilepsy	Dr. L. Belayev
10/30	Speech and language processing	Dr. H. Farris
11/01	Stroke and head trauma	Dr. L. Belayev
11/06	SFN 2018 Meeting San Diego No Class	
11/08	SFN 2018 Meeting San Diego No Class	
11/20	Final Research Topics Papers due (30% of grade)	
11/20	Final Exam (last 12 lectures; 40% of grade)	
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