

Perusall	Create a Perusall account and enter your course code DREW-63ES upon registration
Homeworks	Assignments posted on course schedule are due at the beginning of the next class unless otherwise indicated. Homework turned in after the deadline will not be accepted unless arrangements are made before the homework is late. See schedule for when homework is due. Permission to hand in HW via e-mail may be arranged in advance and will not be accepted without prior arrangements. Homework and reading assignments (other than from the text book) will be posted on blackboard

Home work make-up: Attend neuroscience seminars online at <http://neuroseries.info.nih.gov/> or on campus. Check with the instructor to ask if the seminar will count as a neuroscience seminar. A write-up about a seminar will substitute for one HW assignment (peer reviews of selected articles). Up to 3 HW assignments can be substituted by a seminar write-up.

Literature relevant to these topics. Critical thinking skills and experimental design will be taught through discussion of original research papers that relate to the lecture topic.

Prerequisite: BIOLB417, CHEMF470 or equivalent instruction in basic cell and molecular biology and nervous system function

rGoe

Course Goals:

Students should be able to:

G%

analysis of peer reviewed literature in neurochemistry and in written and oral communication of the strengths and weaknesses of hypothesis driven research in the area of neurochemistry.

Student Learning Outcomes

Written homework, group project and final project assignments will be used to assess Familiarity with current literature related to functions and diseases associated with neurotransmitter/neuromodulator ; Abi

Detailed mechanisms of inter-cellular communication in the CNS and the ability to design experiments to test hypotheses regarding these mechanisms and the physiological functions related to these processes.
Synthesis
Storage
Regulated release

Final Project

For the final project each student will develop an original theoretical model to answer a question he/she finds to be significant and related to inter cellular communication in the CNS. Based on the proposed model students will formulate a set of hypotheses and propose a set of experiments to test one of these hypotheses. The student will describe expected and alternative results and discuss interpretation of both expected and unexpected results. Learning will be assessed from the credibility of the model proposed, ability to assess the rigor of background literature related to the model, ability to identify weaknesses and strengths of prior work and ability to defend how the proposed model improves upon weaknesses and builds upon strengths of prior work. Learning will also be assessed from the student's ability to discuss and interpret expected and unexpected results.