Perusall	Create a Perusall account and enter your course code DREW-63E8Y upon registration
Homework:	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-

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		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: BIOL B417, CHEM F470 or equivalent instruction in basic cell and molecular biology and nervous system function
Course Goals:	Students should be Q L / % r ((6i 6i	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	

Receptor subtypes and effectors
Termination of effect
Basic neurochemical anatomy of transmitter systems
Neuromodulation via astrocytes.

Develop effective techniques for oral presentation of original re sea

(Homework) Students will be guided by the instructor through critical evaluation of peer reviewed papers to achieve the following objectives:

Apply knowledge of neurochemical transmission to interpretation of peer reviewed papers.

Apply knowledge of neurochemistry and experimental design to critically evaluate original research papers and literature reviews.

Develop critical thinking skills and oral and written communication styles to defend one's own interpretation of the data.

Know how to prepare comments for authors to be submitted in response to an invitation by a journal editor to review a manuscript.

(Group project assignment) Students will gain practice with oral presentations of original research towards the following objectives:

Become

Develop effective techniques for oral presentation of original re sea

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.