Approximate course calendar (version2, 7 Feb)

<u>Week Day Date Topic/Goal</u>

Asking Questions: Learning to Think like a Biochemist

1 Μ Jan. 17 Introduction to the course and to "advanced" biochemistry Monday Lab: Finding biochemical answers, part I (gaining comfort with the biochemical literature); Formation of groups for research proposals, overview of a research proposal W 19 What is "Memory"?; Asking Biochemical Questions: experimental design, and the nature of scientific information and communication F Discussion of experimental design scenarios 21 Friday Lab: Finding biochemical answers, part I (gaining comfort with the biochemical literature); Formation of groups for research proposals 2 this week meet with your lab partners outside of class to discuss possible lab projects Jan. Μ 24 Martin Luther King celebration; no class or lab W 26 An introduction to the scientific exploration of Memory F 28 Molecular events in neurotransmission I: action potentials Lab on Friday week2/Monday week3: common experimental questions we ask in Biochemistry and Molecular Biology 3 this week meet with your lab partners outside of class to discuss your lab project Μ Jan. 31 Molecular events in neurotransmission II: ion channels W 2 CLASS CANCELLED due to Ice F 4 Molecular events in neurotransmission III: neurotransmitters Lab on Friday week3/Monday week4: General and Specific Aims, Citing and Summarizing scientific sources **Research Project Topic due (not graded)** Problem set #1 handed out (due next Monday) 4 Μ Feb. 7 Molecular events in neurotransmission IV: receptor-mediated signal transduction cascades 9 W Asking questions about the biochemistry of neurotransmission... F 11 Cool science Friday Research Project Core Bibliography and General Aims due (not graded) Problem set #1 due Lab on Friday week4/Monday week5: consultations with individual groups about your projects (sign up for appointments at the start of lab) 5 Μ Feb. 14 ...and understanding the answers W 16 Critical analysis of scientific data: dissecting a figure (QEMDI) Research proposal draft of Background and Significance due (not graded) F 18 Asking Biochemical Questions about neuroscience: wrap session Problem set #2 handed out (due next Wednesday) Lab on Friday week5/Monday week6: **brief presentations on your research proposals**

Learning and Memory: a molecular perspective

6	Μ	Feb.	21	Research case #1: Simple systems for exploring basic phenomena
	W		23	Problem set #2 due
	Б		25	Research proposal Specific Aims due (not graded)
	Г		23	Lab Fow 7: Individual group consultations on wet experimental work;
				in: not graded)
7	M/W/F W	Mar.	2	Research case #2
				Problem set #3 handed out (due next Wednesday)
				Research proposal draft of Experimental Plan due (not graded)
				Lab F/M8: prepare protocols and reagents for "wet" experimental work
8	M/W/F			Research case #3: Long-term potentiation
	W F	Mar. Mar.	9 11	Problem set #3 due
				Cool science Friday
				Leb E2M0: begin "wet" experimental work
				Lao Folvi9. Degin wet experimental work
		* * *	* S P	RING BREAK!** *
9	M/W/F			Research case #4: synaptic strengthening
	F	Mar.	25	Problem set #4 handed out (due next Wednesday)
				Lab F9M10: peer review of research proposals
10	M/W/F			Research Case #5: can spines learn?
	W	Mar.	30	Problem set #4 due
				Lab F10M11: "wet" experimental work (week 2)
11	M/W/F			Research case #6: synaptic tagging
	F		8	Cool science Friday
				Research proposal preliminary grades reported
				Lab F11M12: Wet experimental work (week 3)
12	M/W/F			Research Case #6: the science of forgetting
	F	Apr.	15	Problem set #5 handed out (due next Wednesday)
				Lab F12M13: "wet" experimental work (week 4)
13	M/W/F			Class picks: cool new research in learning and memory
	W		20	Course evaluations for 9:30 class (10:00 to 10:20, T428)
				Problem set #5 due
				Lab F13M14: "wet" experimental work (week 5)
14	M/W/F			Class picks: cool new research in learning and memory
	Μ		25	Course evaluations for 10:30 class (10:30 to 10:50, T428)
				$Lab \ F14M15$: brief presentations on your proposals and experimental results
15	Μ	May	2	So much cool science, so little time
				Final, revised draft of research proposal due
		Mav	4-11	Final (oral) exams, by appointment