class mechanics

www.dnitz.com - scheduling and materials

two must-reads each week – an experimental publication and a review publication

non-cumulative midterm and final – most questions given out a week in advance of an exam – short-essay answers with strict space limitations – questions based on lecture material and assigned readings

open discussion, know your figures, know what you don’t know, ask any smart/dumb question – this is not ‘textbook’ material so a decent dose of skepticism is in order
some personal reasons for my interest

a code for mapping the right turn at the north corner of the 3\textsuperscript{rd} loop

a multi-paced metronome
research approaches

lesion / inactivation / gene-knockout – take something out and see how it impacts spatial and/or temporal cognition and capabilities

examine neural dynamics during performance of tasks demanding understanding of space and/or time

manipulate variables related to space and time and observe effect on performance and/or effect on reported experience
a few reasons to study space and time as they play out in patterns of brain electrical activity

variables related to space and time for the core of our experiences in the world

an opportunity to study higher cognitive processes in species (e.g., rat) where recordings having high spatial and temporal resolution can be carried out (e.g., ‘higher cognitive processes’ such as object space, personal space, episodic memory, schema/rule-learning)

an opportunity to bridge cellular-level and psychology-level learning processes (genes→LTP→neural dynamics→performance)

cool, Nobel-prize-winning phenomena are found that were not predicted by any model/theory
the apple sits on the left side of the desk...

which sits in front of the chalkboard...

which hangs in the back of the classroom...

which is on the west side of the building
encoding ‘eras’ of time with spatial mapping (Rangel et al., Nature Communications, 2014)