Advanced Systems Neuroscience
Psych 610, Winter 2019, CRN 26029

The schedule in this syllabus is preliminary and may change.
Last updated Wednesday, December 12, 2018

217 LISB, Tue/Thur 12:00-1:30pm
Lead Instructor: Mike Wehr
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Advanced Systems Neuroscience is the second course in the Advanced Neuroscience series, the sequence designed to bring entering doctoral students up to speed on the fundamentals of neuroscience. Advanced Systems Neuroscience begins where its prerequisite, Advanced Cellular Neuroscience, left off, and considers the function of neural circuitry and its relationship to perception and behavior. Advanced Systems Neuroscience begins with a series of lectures on general principles, then progresses through the systems (sensory and others). Pre-requisites: enrollment in Psychology or Biology doctoral program; Advanced Cellular Neuroscience (or instructor's consent).

Lecturers

Yashar Ahmadian	238 Huestis	yahmadian@gmail.com
Paul Dassonville	331 LISB	prd@uoregon.edu
Santiago Jaramillo	214 LISB	sjara@uoregon.edu
Kip Keller	228 Huestis	keller@uoneuro.uoregon.edu
David McCormick	233 Huestis	davidmc@uoregon.edu
Matt Smear	212 Huestis	smear@uoregon.edu
Terry Takahashi	224 Huestis	terry@uoregon.edu
Phil Washbourne	338 Huestis	pwash@uoneuro.uoregon.edu
Mike Wehr	213 LISB	wehr@uoregon.edu

Readings: Each lecturer will assign articles on their topic. These are available on Canvas, in the module for each lecture.

Exams: You will be evaluated on two, equally-weighted, take-home exams. The exams will be available through Canvas. The second exam is not cumulative. You will have 6 days to complete the exam. Collaboration is not permitted.

The University of Oregon is working to create an inclusive learning environment. Please notify me, within the first 2 weeks of class, if you have a disability that could impede your learning experience in this class. Please contact Disability Services for further information (164 Oregon Hall; 6-1155 or disabserv@uoregon.edu). I will work with you and Disabilities Services to help facilitate your learning experience.

Tuesday	Wednesday	Thursday
January 8 Day 1 Neural coding Mike Wehr	9	10 Day 2 Neuromodulation David McCormick
15 Day 3 Linear systems & signals Santiago Jaramillo	16	17 Day 4 Developmental Plasticity Phil Wasbourne
22 Day 5 Adaptation Kip Keller	23	24 Day 6 Hopfield Networks Yashar Ahmadian
29 Day 7 Divisive Normalization Yashar Ahmadian	30	31 Day 8 Optogenetics Matt Smear
February 5 Day 9 Audition Terry Takahashi	6	7 Day 10 Audition Terry Takahashi **Midterm available**
12 Day 11 Auditory Cortex Mike Wehr	13 **Midterm Due Wednesday, February 13th at 11:59 pm**	14 Day 12 Echolocation Mike Wehr
19 Day 13 Olfaction Matt Smear	20	21 Day 14 Somatosensation Mike Wehr
26 Day 15 Vision Paul Dassonville	27	28 Day 16 Vision Paul Dassonville
March 5 (Cosyne) Day 17 Navigation Mike Wehr	6	7 Day 18 Reward & Addiction Mike Wehr
12 Day 19 Electroreception Kip Keller	13	14 Day 20 Decision-Making Shawn Lockery **Final available**
19	20 **Final due Wednesday, March 20nd at 11:59 pm**	21