

Neural Circuits & Behavior
 The University of Michigan, Ann Arbor, Michigan

Course description

In this seminar course, we will discuss studies investigating the neuronal basis of natural behaviors. Topics will include foraging and feeding behaviors; aggression, sexual and parental behaviors; and predation and evasion behaviors. Additionally, cutting-edge techniques in neuroscience will be discussed. The course will require reading ~2 articles a week, presenting papers in class twice during the semester and preparing a final research proposal. Participants are expected to read the articles, attend classes and participate in discussions. The main assessments will be class participation, written assignments, class presentations, and a final project (research proposal).

Classes and dates

Class#	Topic	Reading
1	Introduction: Course overview and expectations	
2	Intro 1: Scientific methodology	[1]
3	Intro 2: Behavior, ethology and evolution	[2]
4	Intro 3: Neuroscience, techniques, Part 1	[3]
5	Intro 3: Neuroscience, techniques, Part 2	[4]
6	Intro 4: Neuroscience, techniques, Part 3	[5]
7	Intro 5: Studying the neuroscience of internal states + How to read a scientific paper	[6]
8	Topic 1: Hunger and feeding, overview	[7]
9	Topic 1: Neuronal regulation of feeding	[8]
10	Topic 1: Neuronal regulation of feeding	[9]
11	Topic 2: Aggression, overview	[10]
12	Topic 2: Neuronal regulation of aggression	[11]
13	Topic 2: Neuronal regulation of aggression	[12]
14	Review, methods and methodology	
15	Topic 3: Sexual behaviors, overview	[13]
16	Topic 3: Neuronal regulation of sexual behaviors	[14]
17	Topic 3: Neuronal regulation of sexual behaviors	[15]
18	Topic 4: Parental behaviors, overview	[16]
19	Topic 4: Neuronal regulation of parental behaviors	[17]
20	Topic 4: Neuronal regulation of parental behaviors	[18]
21	Topic 5: Predation and evasion behaviors, overview	[19]
22	Topic 5: Neuronal regulation of predation and evasion	[20]
23	Topic 5: Neuronal regulation of predation and evasion	[21]
24	Sum 1: Designing scientific experiments	[22]
25	Sum 2: Final project meetings	
26	Sum 2: Final project presentations + Peer assessment	
27	Sum 2: Final project presentations + Peer assessment	