

Date			Format	Topic	Reading
Tuesday	8/22			Course overview	
Thursday	8/24		Lecture	Neurons and synapses	
Tuesday	8/29		Lecture	Brain circuits	
Thursday	8/31	w	Lecture	Classic methods	
Tuesday	9/5	t	Seminar + Disc (1)	Readout	Large-scale recording of neuronal ensembles
Thursday	9/7				
Tuesday	9/12	t	Seminar + Disc (2)	Readout	Fully integrated silicon probes for high-density recording of neural activity
Thursday	9/14	w	Seminar + Disc (3)	Readout	Mesoscopic imaging: shining a wide light on large-scale neural dynamics
Tuesday	9/19		Seminar + Disc (4)	Readout	Wide, fast, deep: recent advances in multiphoton microscopy of in vivo neuronal activity
Thursday	9/21	w	Seminar + Disc (5)	Readout	Emerging penetrating neural electrodes: in pursuit of large scale and longevity
Tuesday	9/26	t	Seminar + Disc (6)	Readout	Quantifying behavior to understand the brain
Thursday	9/28	w	Seminar + Disc (7)	Readout	Building a culture of responsible neurotech: Neuroethics as socio-technical challenges
Tuesday	10/3	t	Lecture	Neural coding	
Thursday	10/5	w	Lecture	Brain-machine interface	
Tuesday	10/10			Fall Break	
Thursday	10/12		Lecture	Neuroprosthetics	
Tuesday	10/17	t	Seminar + Disc (1)	Control	Technology of deep brain stimulation: current status and future directions
Thursday	10/19	w, PS	Seminar + Disc (2)	Control	Adeno-associated virus toolkit to target diverse brain cells
Tuesday	10/24		Seminar + Disc (3)	Control	Optogenetics for light control of biological systems
Thursday	10/26				
Tuesday	10/31	t	Seminar + Disc (4)	Control	DREADDs for neuroscientists
Thursday	11/2	w	Seminar + Disc (5)	Control	Transcranial magnetic stimulation: a primer
Tuesday	11/7	t	Seminar + Disc (6)	Control	Ultrasound technologies for imaging and modulating neural activity
Thursday	11/9	w	Seminar + Disc (7)	Control	Restoration of brain circulation and cellular functions hours post-mortem
Tuesday	11/14	t	Lecture	Closed-loop stimulation	
Thursday	11/16	w		Final presentation	
Tuesday	11/21	t		Final presentation	
Thursday	11/23			Thanksgiving	
Tuesday	11/28	t		Final presentation	
Thursday	11/30	w		Final presentation	

t indicates Tuesday office hour that week

w indicates Wednesday office hour that week

PS indicates due date for problem set at 5pm