

## NGG 5720: Core II-Electrical Language of Cells

Class time: 10:00 to 12:00 pm.

Location: BRB 251, Biomedical Research Building (BRB) (room reserved 9:30 – 12:15 pm)

Course director: Akiva Cohen [COHENA@chop.edu](mailto:COHENA@chop.edu)

TA's: Ian Diaz Nieves, Lyndsay Hastings, Evan Jiang

### Schedule:

Tue Aug 26, 2025	Course orientation (Cohen)/ Reproducibility (Fuccillo)
Thu Aug 28, 2025	Passive properties of neurons (Alex Proekt)
Tue Sep 2, 2025	Active membrane properties I (Alex Proekt)
	Core II Lunch - get to know your instructors 12 pm to 1:30pm (Barchi)
Thu Sep 4, 2025	Active membrane properties II (Alex Proekt)
Tue Sep 9, 2025	Neurotransmitters and receptors (Nusbaum)
Thu Sep 11, 2025	Active membrane properties III (Alex Proekt)
Tue Sep 16, 2025	Synaptic transmission I (Nusbaum)
Thu Sep 18, 2025	Synaptic transmission II (Nusbaum)
	Review/Discussion by Nusbaum 12:00 pm to 1:00 pm
Tue Sep 23, 2025	No Class (Rosh Hashanna)
Thu Sept 25, 2025	Neuroscience in Practice II (Cohen, Fuccillo, Chanaday, Goldberg)
	<b>Exam I questions released at 12 pm</b>
Tue Sept 30, 2025	Neuroscience in Practice I (Cohen, Fuccillo, Chanaday, Goldberg)
Thu Oct 2, 2025	Presynaptic mechanisms I (Chanaday)
	<b>Assignment Exam I answers due 5 pm</b>
Tue Oct 7, 2025	Presynaptic mechanisms II (Chanaday)
Thu Oct 9, 2025	Presynaptic mechanisms III (Chanaday)
Tue Oct 14, 2025	CNS synapses I (Akiva Cohen)
Thu Oct 16, 2025	Optogenetics (Goldberg)/imaging
Tue Oct 21, 2025	CNS synapses II (Don Joseph)
Thu Oct 23, 2025	CNS synapses III (Don Joseph)

**Exam II questions released 12 pm**

Tue Oct 28, 2025      Synaptic plasticity I (Fuccillo)

Thu Oct 30, 2025      Synaptic plasticity II (Fuccillo)

**Assignment Exam II answers due 5 pm**

Tue Nov 4, 2025      Synaptic plasticity III (Fuccillo)

Thu Nov 6, 2025      Sensory transduction I (Ma)

Tue Nov 11, 2025      Sensory transduction II (Ma)

Thu Nov 13, 2025      Sensory transduction III (Ma)

Tue Nov 18, 2025      No class (SfN Nov 15-19)

Thu Nov 20, 2025      Neuronal circuit I (Nusbaum)

Tue Nov 25, 2025      Neuronal circuit II (Nusbaum)

Thu Nov 27, 2025      NO CLASS meeting (Thanksgiving)

Tue Dec 2, 2025      Neuronal circuit III (Nusbaum)

Thu Dec 4, 2025      Neuronal circuit IV (Nusbaum)

Review/Discussion by Nusbaum 12:00 pm to 1:00 pm

Tue Dec 9, 2025      **Exam III questions released at 12 pm**

Thu Dec 11, 2025      **Assignment Exam III answers due by 5pm**