

Cellular Neuroscience (G16.2005001 / NEURL-GA 2201)

Course Directors

Mitch Chesler
NYC Public Health Bldg
455 First Ave, Rm 875
212-263-6318
Mitchell.Chesler@nyumc.org

Adam Carter
Center for Neural Science
4 Washington Pl, Rm 809
212-998-3882
adam.carter@nyu.edu

Location / Time

Lectures will meet on Mon and Wed from 9:00 – 11:00 am

Classes are split between the two campuses:

Downtown: 4 Washington Place, Room 815 (CNS Classroom)

Uptown: Alexandria Building, 450 E. 29th St., 9th floor Conference Room

Labs will meet on Fridays from 1:00 – 5:00 pm

Downtown: Silver Center, Room 612 or Faculty Research Labs

Conferences will meet on Fridays from 1:00 – 3:00 pm

Downtown: 4 Washington Place, Room 815 (CNS Classroom)

Uptown: Alexandria Building, 450 E. 29th St., 9th floor Conference Room

Assigned Reading

Molecular and Cellular Physiology of Neurons, 2nd Edition (Gordon Fain)

Handouts

Grading

Two in-class closed book exams with a choice of questions (50% each)

Laboratory and conference participation (50% each)

Syllabus – Fall 2015

DATE	DAY	TOPIC	FACULTY	LOCATION	READING
Sept 2	W	Lecture 1: Introduction	Carter	MEYER 815	Handouts
Sept 4	F	Lab 1: Microscopy I	Aoki	SILVER 612	Handouts
Sept 7	M	No Class – Labor Day			
Sept 9	W	Lecture 2: Passive properties	Reyes	MEYER 815	Fain 2
Sept 11	F	Lab 2: Microscopy II	Aoki	SILVER 612	Handouts
Sept 14	M	Lecture 3: Membrane potentials	Reyes	MEYER 815	Fain 3
Sept 16	W	Lecture 4: Action potentials	Reyes	MEYER 815	Fain 5
Sept 18	F	Lab 3: Action potentials	Chesler	SILVER 612	Handouts
Sept 21	M	Lecture 5: Na ⁺ channels	Tsien	ALEXANDRIA 901	Fain 6 & 7
Sept 23	W	Lecture 6: Ca ²⁺ channels and signaling	Tsien	ALEXANDRIA 901	Fain 6 & 7
Sept 25	F	Lab 4: Electrophysiology I	Reyes	SILVER 612	Handouts
Sept 28	M	Lecture 7: K ⁺ channels	Rudy	ALEXANDRIA 901	Fain 6 & 7
Sept 30	W	Lecture 8: Diversity of firing	Rudy	ALEXANDRIA 901	Handouts
Oct 2	F	Lab 5: Electrophysiology II	Reyes	SILVER 612	Handouts
Oct 5	M	Lecture 9: Axons and dendrites	Carter	MEYER 815	Handouts
Oct 7	W	Lecture 10: Cell biology of glia	Salzer	ALEXANDRIA 901	Handouts
Oct 9	F	Lab 6: Electrophysiology III	Reyes	SILVER 612	Handouts
Oct 12	M	Review session	Multiple	MEYER 815	
Oct 14	W	MIDTERM EXAM COVERING LECTURES 1–10		MEYER 815	
Oct 16	F	No Class – SFN meeting			
Oct 19	M	No Class – SFN meeting			
Oct 21	W	No Class – SFN meeting			
Oct 23	F	Conference 1: Paper presentations	Carter / Chesler	MEYER 815	Papers
Oct 26	M	Lecture 11: Synaptic transmission	Tsien	ALEXANDRIA 901	Fain 8
Oct 28	W	Lecture 12: Presynaptic release	Tsien	ALEXANDRIA 901	Fain 8
Oct 30	F	Conference 2: Synaptic transmission	Tsien	ALEXANDRIA 901	Papers
Nov 2	M	Lecture 13: Excitatory transmission	Carter	MEYER 815	Fain 9
Nov 4	W	Lecture 14: Inhibitory transmission	Carter	MEYER 815	Fain 10
Nov 6	F	Conference 3: Synaptic integration	Carter	MEYER 815	Papers
Nov 9	M	Lecture 15: Intracellular signaling 1	Ringstad	ALEXANDRIA 901	Fain 11
Nov 11	W	Lecture 16: Intracellular signaling 2	Ringstad	ALEXANDRIA 901	Fain 12 & 13
Nov 13	F	Conference 4: Intracellular signaling	Ringstad	ALEXANDRIA 901	Papers
Nov 16	M	Lecture 17: Neuromodulation 1	Rice	ALEXANDRIA 901	Handouts
Nov 18	W	Lecture 18: Neuromodulation 2	Rice	ALEXANDRIA 901	Handouts
Nov 20	F	Conference 5: Neuromodulation	Rice	ALEXANDRIA 901	Papers
Nov 23	M	Lecture 19: Synaptic plasticity 1	Long	ALEXANDRIA 901	Fain 14
Nov 25	W	Lecture 20: Synaptic plasticity 2	Long	ALEXANDRIA 901	Fain 14
Nov 27	F	No Class – Thanksgiving			
Nov 30	M	Lecture 21: Sensory transduction 1	Nagel	ALEXANDRIA 901	Fain 15
Dec 2	W	Lecture 22: Sensory transduction 2	Nagel	ALEXANDRIA 901	Fain 16
Dec 4	F	Conference 6: Sensory transduction	Nagel	ALEXANDRIA 901	Papers
Dec 7	M	Lecture 23: Neural circuits	Carter	MEYER 815	Handouts
Dec 9	W	Review session	Multiple	MEYER 815	
Dec 11	F	FINAL EXAM COVERING LECTURES 11 – 23		MEYER 815	