

2014 Neurobiology I, (Zoology 523, Psychology 523, Neuroscience 523)

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TAs: Taehee Kim, Stacey Kigar, Katie Yang**

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Tony Stretton; 105 Zoology Research; ph: 262-2172; email: aostrett@wisc.edu; Off. hrs: R 4.00-5.00 pm, Steep & Brew, State Street

Taehee Kim; ph: 265-844; email: tkim8@wisc.edu; Off. hrs: T 2.00 – 3.00 pm, UW Hospital Cafeteria.

Stacey Kigar; ph: 608-692-7396; email: kigar@wisc.edu; Off. hrs T 12:15- 1.15 pm in the WID, near Aldo's.

Katie Yang; ph: 262-6122; email: kricks@wisc.edu; Off. hrs: W 4.00 – 5.00 pm in the WID, near Aldo's.

Optional discussion session; Tues 4.00 – 4.50 pm; A – K in 119 Noland; L – Z in 123 Noland. (Starts Sept 9th)

Text: Nicholls et al. "From Neuron to Brain" 5th edition.

Dates

Wed Sept. 3	TS	Introduction; Structure of neurons and glial cells
Fri, Sept. 5	TS	Structure of neurons and glial cells (cont'd)-- 1st problem set passed out
Mon, Sept. 8	TS	Signals of the Nervous System
Wed, Sept. 10	TS	Membranes I - membrane lipids
Fri, Sept. 12	TS	Membranes II - electrical properties of membranes. 1st problem set due, 2nd passed out.
Mon, Sept. 15	TS	Membranes III - membrane proteins
Wed, Sept. 17	TS	Ionic basis of membrane potential. 2nd problem set due, 3rd passed out
Fri, Sept. 19	TS	Membrane Channels I - single channel recording
Mon, Sept. 22		1st hour exam.
Wed, Sept. 24	TS	Membrane Channels II.
Fri, Sept 26	TS	The action potential. 3rd problem set due, 4th passed out
Mon, Sept 29	TS	Channel structure and function
Wed, Oct. 1	TS	Spread of voltage signals.
Fri, Oct. 3	TS	Sensory receptors I. 4th problem set due, 5th passed out
Mon, Oct. 6	TS	Sensory receptors II
Wed, Oct. 8	TS	Anatomy of synapses.
Fri, Oct 10	TS	Electrical synapses . 5th problem set due, 6th passed out
Mon, Oct. 13		2nd hour exam.
Wed, Oct. 15	TS	Ionic mechanisms of synapses.
Fri, Oct. 17	TS	Transmitter release I . 6th problem set due, 7th problem set passed out
Mon, Oct. 20	TS	Transmitter release II
Wed, Oct. 22	TS	Variety of synaptic transmitters
Fri, Oct. 24	TS	Synaptic pharmacology. 7th problem set due, 8th passed out

Mon, Oct 27	TS	Indirect mechanics of synaptic transmission I
Wed, Oct 29	TS	Indirect mechanics of synaptic transmission II
Fri, Oct 31	TS	Plasticity. 8th problem set due
Mon, Nov 3		3rd hour exam
Wed, Nov. 5	TS	Memory and learning.
Fri, Nov. 7	SB	More memory
Mon, Nov. 10	SB	Circuitry 1- central pattern generators
Wed, Nov. 12	SB	Circuitry 2- the retina
Fri, Nov. 14	SB	Circuitry 3- visual pathways; 9th problem set passed out
Mon, Nov. 17	SB	Activity and neuronal development.
Wed, Nov. 19	SB	Trophic factors
Fri, Nov. 21	SB	Synaptogenesis
Mon, Nov 24	SB	9th problem set due, 10th passed out Axon guidance I
Wed, Nov. 26	SB	Axon guidance II
Thurs, Nov. 27		THANKSGIVING
Mon, Dec. 1	SB	Early development of the nervous system I
Wed, Dec. 3	SB	Early development of the nervous system II 10th problem set due
Fri, Dec. 5	SB	Early development of the nervous system III
Mon, Dec. 8	TS	Mental Illness
Wed, Dec 10	SB	Regeneration and recovery from injury
Fri, Dec. 12		Last Hour Exam