

BIONB/BME/ECE 4910 Selected Reading Assignments¹, Spring 2016

Week 1 (Jan 27): None, No lab sessions

Week 2 (Feb 1-3): Wytttenbach et al.², Lab 1, Appendix C, Resources for electrical properties background - Axon Guide³, chapter 1; see *222passiveprop.pdf* on course website.

Week 3 (Feb 8-10): Wytttenbach et al., Lab 2, Appendices A and B

Week 4 (Feb 17): None, Winter Break

Week 5 (Feb 22-24): Wytttenbach et al., Lab 7

Week 6 (Feb 29- March 2): Wytttenbach et al., Lab 4

Week 7 (March 7-9): Wytttenbach et al., Lab 5

Week 8 (March 14-16): Wytttenbach et al., Lab 6

Week 9 (March 21-23): Wytttenbach et al., Lab 10; Wayne⁴

Week 10 (March 28-30): Spring Break

Week 11 (April 4-April 6): Wytttenbach et al., Lab 8; Hammond⁵ (Chapter 17)

Week 12 (April 11-13): Wytttenbach et al., Lab 9, Hammond⁵ (Chapter 17)

Week 13 (April 18-20): Wytttenbach et al., Lab 10; Opto-genetic Activation of Behavior and Physiology handout, Allen and Godenschwege⁶, Augustin et al⁷

Week 14 (April 25-27): Crayfish Caudal Photoreceptor handout

Week 15 (May 2-4): Readings for special projects

Week 16 (May 9-11): Readings for special projects

¹Additional readings will be posted, as appropriate for a lab exercise or class discussion.

²Wytttenbach, R.A., Johnson, B.R. and R.R. Hoy (2014) *Crawdad: An Online Lab Manual for Neurophysiology*. Sinauer Associates, Inc. Sunderland, MA.

³Axon Guide for Electrophysiology & Biophysics Laboratory Techniques. 1993. Axon Instruments (copy in lab, also at: <http://mdc.custhelp.com/euf/assets/content/Axon%20Guide%203rd%20edition.pdf>).

⁴Wayne, R. 1993. Excitability in plant cells. *Am. Scient.* **81**:140-151.

⁵Hammond, C. 2016. *Cellular and Molecular Neurophysiology*. Academic Press.

- ⁶ Allen MJ and T.A. Godenschwege. 2010. Electrophysiological recordings from the *Drosophila* giant fiber system. In: *Drosophila* neurobiology (Zhang et al., eds), pp. 215-224. Cold Spring Harbor, NY: CSHL Press.
- ⁷ Augustin, H., Allen, M.J. and L. Partridge. 2011. Electrophysiological Recordings from the Giant Fiber Pathway of *D. melanogaster*. *J. Vis. Exp.* (47), e2412, doi:10.3791/2412.