

**Biology Lecture Study Organizer for Lecture Test 3**  
**Chapters 8 and 9 (parts of each chapter)**

**Text Chapter 8: Nervous System**

For this part of the course, we will begin with Section 8.4, page 194 and continue to the end, since we have already covered the introductory sections.

**Reading: pages 194-232**, but not all at once! We will take five lectures to cover this material.

Also, related to Nervous System III: “Autonomic Nervous System,” in **Chapter 10** read “Adrenal Glands: Adrenal Medulla,” page 282, and refer to Fig. 10.19, page 283. Read “Clinical Impact: Hormones and Stress,” page 284.

**Useful illustrations:** 8.7- 8.19, 8.21, 8.24, 8.26, 8.27, 8.29, 8.30, 8.34-8.36, 8.38, 8.39. Tables 8.2, 8.7, and 8.8, and Fig. 10.19, p. 282.

\_\_\_\_\_ **Systems Pathology** (end of chapter) “Stroke,” pages 230-231.

**Lectures: “Action Potentials,” “Synapses,” Spinal Cord and Brain as an Organ,” “Brain Functions” and “Autonomic Nervous System.”**

**Connect Online Lecture Homework: Chapter 8**, Nervous System--Action Potentials, CNS. See Connect Learn Smart for due date.

**Connect Online Lecture Homework: Chapter 8**, Nervous System--Nerve tracts + ANS. See Connect Learn Smart for due date.

**After Lecture Study**

Since there are five lectures over these topics, divide your reading and review to correspond with the lectures. The lectures follow the order as in the text.

\_\_\_\_\_ **Review lecture notes daily!**

\_\_\_\_\_ **Read/refer to Chapter 8**, one lecture at a time, studying the assigned illustrations. Reread Chapter 10, page 282-283, as assigned above.

\_\_\_\_\_ **Summary** (end of Chapter): 8.4, 8.5, 8.8-8.12, 8.14

\_\_\_\_\_ **Review and Comprehension** (end of chapter): 9-18, 25-27, 29, 35, 36, 38-40.

\_\_\_\_\_ **Learn to Apply It/ Apply It!** (found at the beginning of the chapter and within the text): 1, 2, 4, 7, 8. Explanations are in Appendix E.

\_\_\_\_\_ **Critical Thinking** (end of chapter): 1 and 4 only. Answers are in Appendix D.

### **Seeley's Online Learning Center, Student Edition, Chapter 8: Nervous System**

\_\_\_\_\_ **Animations/Videos:** View in this order: Membrane Potentials and the Nerve Impulse, Voltage-gated Ion Channels and the Action Potential; The Na<sup>+</sup>-K<sup>+</sup> Pump, Action Potentials on an Unmyelinated Neuron, Action Potentials on a Myelinated Neuron, Chemical Synapses, The Reflex Arc, Divisions of the Brain, The Meninges, and Circulation of CSF.

**Text Chapter 9: Senses** (General and Chemical Senses only for Test 3)

Much of this chapter will be covered later as part of preparation for Test 4. It is a short but information-rich chapter.

**Reading: Pages 237-242.**

**Useful illustrations:** 9.1-9.6.

**Lecture: "General and Chemical Senses."**

**After Lecture Study**

\_\_\_\_\_ **Review lecture notes daily!**

\_\_\_\_\_ **Read/Refer to Chapter 9**, as above, studying the assigned illustrations.

\_\_\_\_\_ **Summary** (end of chapter): 9.1-9.6

\_\_\_\_\_ **Review and Comprehension** (end of chapter): 1, 2, 4-7.

\_\_\_\_\_ **Learn to Apply It/Apply It!** (found at the beginning of the chapter and within the text): 1, 2. Explanations are in Appendix E.

\_\_\_\_\_ **Critical Thinking** (end of chapter): None.

**Seeley's Online Learning Center, Student Edition, Chapter 9: Senses**

\_\_\_\_\_ **Animations/Videos:** None