IBS on Campus (Fall 2015)

Cranial Nerves and Special Senses

FYI: Tests (i.e. self-assessment and case study quizzes, exams) will only cover required, but not recommended or optional readings.

1) Describe the anatomical and physiological basics of smelling
   Ch. 17.1: Olfaction - Sense of Smell
   (figure 17.2 and corresponding biochemical details not necessary)
   13e: pp. 636-639; 14e: pp. 573-576

2) Relate the functions of the olfactory nerve to the sensation of smelling, and explain the clinical condition of amnesia
   Ch. 14.8: Cranial Nerves: Olfactory nerve
   13e: pp. 558; 14e: pp. 503

3) Describe anatomical and physiological basics of gustation
   Ch. 17.2: Gustation - Sense of Taste
   (biochemical details in physiology section not necessary)
   13e: pp. 639-642; 14e: pp. 576-579

4) Relate the functions of the facial and glossopharyngal nerves to the sensation of taste, and describe the conditions that result from nerve damages
   Ch. 14.8: Cranial Nerves:
   13e: pp. 564, 566; 14e: pp. 508, 510

5) Outline the main sensory and motor functions of the vagus nerve, especially its role in sensing hunger/fullness, as well as in the nerve supply of digestive organs
   Ch. 14.8: Cranial Nerves
   13e: p. 567; 14e: p. 511

   Optional, fyi: Accessory structures of the eye
   Ch. 17.3: Vision
   13e: pp. 642-645; 14e: pp. 579-582

6) Depict the main anatomical components of the eyeball
   Ch. 17.3: Vision
   13e: pp. 646-649; 14e: pp. 583-587

7) Describe the medical condition of age-related macular degeneration
   Ch. 17.3: Clinical connections box on AMD
   13e: p. 649; 14e: p. 588;

   Optional, fyi: Image formation, near-point vision and refraction abnormalities
   Ch. 17.3:
   13e: pp. 649-652; 14e: pp. 587-590
8) **Briefly state the role of the optic nerve in vision**
   Ch. 14.8: Cranial Nerves:
   13e: p. 559; 14e: p. 504

   Optional, fyi: Clinical implications resulting from damages of the eye-motor nerves:
   Ch. 14.8: Cranial Nerves:
   13e: pp. 560-561; 14e: pp. 505-506

9) **Describe the anatomical structures of the three main regions of the ear**
   Ch. 17.4 Hearing
   13e: pp. 656-661; 14e: pp. 595-598

10) **Relate the phenomenon of deafness to noise exposure**
    Ch. 17.4: Clinical connections box on loud sounds and hair cell damage
    13e: p. 661; 14e: p. 598

11) **Outline the main physiological events involved in the hearing process**
    Ch. 17.4: Section on Physiology of hearing
    13e: pp. 664-665; 14e: pp. 601-602
    Clinical connections box on cochlear implants
    13e: p. 665; 14e: p. 602

12) **Briefly state the role of the vestibulocochlear (aka acoustic or auditory) nerve in hearing**
    Ch. 14.8: Cranial Nerves:
    13e: p. 565; 14e: p. 509

13) **Describe the physiology of equilibrium and the condition of motion sickness**
    13e: pp. 665-671; 14e: pp. 602-606; and p. 608 (clinical connections box on motion sickness)
    (section on "Equilibrium pathways" not necessary)