

Supplemental Material

CBE—Life Sciences Education

Tripp *et al.*

Content Coverage as a Persistent Exclusionary Practice: Investigating Perspectives of Health Professionals on the Influence of Undergraduate Coursework

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SUPPLEMENTAL MATERIAL A. Interview questions with nursing participants.

PRE-ASSESSMENT QUESTIONS

1. Where are you geographically located right now?
2. What got you interested in pursuing nursing as a career?
3. What area of nursing are you currently working in?
4. Thinking back to when you were an undergraduate student, what about your undergraduate prerequisite courses are useful to you as a nurse?
5. Regarding the A&P courses you took before you got into nursing school, what institution type did you complete those course(s) at (4-year, community college, private)?
6. Approximately how long ago did you complete these courses?
7. What do you recall, specifically, about your prerequisite anatomy and physiology (A&P) courses?
 - What was most challenging about those courses?
8. How was the *amount of content* and/or *level of detail* from A&P courses helpful in preparing you to be a nurse?
9. How is the *amount of content* and *level of detail* from A&P courses helpful in your day-to-day responsibilities as a nurse?

POST-ASSESSMENT QUESTIONS

10. What did you experience when answering those A&P content questions?
11. How was the content from the assessment similar or different to the undergraduate A&P courses that you completed?
12. After answering those questions, have your thoughts changed regarding the usefulness of the *amount of content* and/or *level of detail* from A&P in preparing you to be a nurse?
 - What about preparing you for nursing school?
13. And then again through the lens of your day-to-day job now. Have your thoughts changed regarding the usefulness of the *amount of content* and/or *level of detail* from A&P courses in your day-to-day responsibilities as a nurse?

14. Why do you think A&P courses are designed the way they are?
15. If you had the power to go back and change anything about your A&P courses, what would it be?
16. What made you continue to persist in you're A&P series?
17. In what ways do you view those A&P classes as equitable to those who didn't persist?
18. Is there anything else you'd like to share with us regarding your undergraduate pre-nursing experience?

SUPPLEMENTAL MATERIAL B. Anatomy and physiology questions generated by HAPS.
Retrieved from <https://www.hapsweb.org> on September 21, 2021.

1. What cranial nerve nucleus associated with eye movement is found in the pons?
 - A. Abducens (CN VI)
 - B. Facial (CN VII)
 - C. Oculomotor (CN III)
 - D. Trigeminal (CN V)
 - E. Trochlear (CN IV)

2. What component of the digestive system contains intestinal glands (crypts of Lieberkühn), but lacks villi?
 - A. Duodenum
 - B. Esophagus
 - C. Ileum
 - D. Stomach
 - E. Transverse colon

3. What would be the clinical sign expected in patients if a lower motor neuron were lesioned?
 - A. Flaccid paralysis
 - B. Hyperreflexia
 - C. Hypertonia
 - D. Increase in strength
 - E. Present Babinski reflex

4. Which of the following muscles is the primary flexor of the forearm?
 - A. Biceps brachii
 - B. Brachialis
 - C. Brachioradialis
 - D. Pronator teres
 - E. Triceps brachii

5. Which of the following occurs during concentric isotonic contraction of skeletal muscle?
 - A. A-bands shorten
 - B. I-bands shorten
 - C. Sarcomeres lengthen
 - D. Thick (myosin) myofilaments lengthen
 - E. Thin (actin) myofilaments shorten

6. Of the following locations, where are the cell bodies of somatic afferent neurons found?
 - A. Anterior (ventral) horn of spinal cord
 - B. Posterior (dorsal) root ganglion
 - C. In cerebral white matter
 - D. Posterior horn of spinal cord

- E. Sympathetic trunk (chain) ganglia
7. At what vertebral level is the esophageal hiatus of the diaphragm located?
- A. T4
 - B. T6
 - C. T8
 - D. T10
 - E. T12
8. Red blood cells would swell when placed in which type of solution?
- A. Hydrophilic
 - B. Hypertonic
 - C. Hypotonic
 - D. Isotonic
 - E. Lipophilic
9. Deoxygenated blood from the superior vena cava drains directly into which area of the heart?
- A. Coronary sinus
 - B. Left atrium
 - C. Left ventricle
 - D. Right atrium
 - E. Right ventricle
10. Primordial follicles, containing primary oocytes, are found in the outer portion of the ovary's cortex. In which stage of meiosis are primary oocytes arrested?
- A. Anaphase of meiosis II
 - B. Metaphase of meiosis I
 - C. Metaphase of meiosis II
 - D. Prophase of meiosis I
 - E. Prophase of meiosis II
11. What structure conducts sperm from the epididymis to the ejaculatory duct?
- A. Duct of the seminal vesicle
 - B. Vas Deferens
 - C. Penile (spongy) urethra
 - D. Prostatic urethra
 - E. Seminiferous tubule
12. What is the name of the process by which neurotransmitters are released from the axon terminal?
- A. Active transport
 - B. Endocytosis
 - C. Exocytosis
 - D. Facilitated diffusion
 - E. Simple diffusion

13. When you see someone that you think is very special and who you would like to get to know better, your heart begins to beat a little faster. In this situation, what is the integrating center?
14. Bob is running a digestion experiment in the lab. He wants to determine which substance(s) is/are most efficient at carrying out fat digestion. He puts food containing different fats plus the substance(s) being tested into test tubes, shakes vigorously, and then leaves the tubes to incubate at body temperature for 30 minutes. Which of the following tubes should show the most fat digestion?
- A. The tube containing bile salts and lipase.
 - B. The tube containing fats and lipase.
 - C. The tube containing fats, bile salts, and lipase.
 - D. The tube containing fats, bile salts, and maltase.
 - E. The tube containing fats, peptidase, and bile salts.
15. What is the term for the volume of blood pumped by one ventricle in one minute?
- A. Cardiac output
 - B. Cardiac velocity of flow
 - C. End-diastolic volume
 - D. End-systolic volume
 - E. Stroke volume
16. If an individual is unable to flex the forearm, a neuron in which region most likely is damaged?
- A. Anterior horn of the spinal cord
 - B. Sympathetic trunk ganglion
 - C. Posterior horn of the spinal cord
 - D. Posterior root ganglion
17. In a healthy individual, all glucose is reabsorbed from tubular fluid in what kidney structure?
- A. Nephron loop
 - B. Proximal convoluted tubule
 - C. Collecting duct
 - D. Distal convoluted tubule
 - E. Renal medulla