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Human anatomy lab manual

Reviewed by Amy Obringer, Professor of Biology, University of Saint Francis on 9/28/24 The Introduction promises support for proper laboratory technique in dissecting preserved animal specimens to explore anatomy. However, the manual lacks figures, photos, and dissection instructions. Comprehensiveness rating: 4 Content Accuracy rating: 5 Cranial nerve mnemonic is outdated and does not match the naming system. Relevance/Longevity rating: 5 All content is relevant and up to date. Clarity rating: 5 Nicely written. Figures are very good. Consistency rating: 5 Modularity rating: 5 Organization/Structure/Flow rating: 5 Interface rating: 5 Free of interface issues. Grammatical Errors rating: 5 No grammar issues. Cultural Relevance rating: 5 One of the few lab books to include both light and dark-skinned figures. A list of words is provided below that you are expected to identify, learn, and label on the models provided. Note that not all models will have some of the organs/structures, so be sure to find them on an alternate model. You must use all the words provided. Using the colored tape provided, write the number that corresponds to the organ/structure and place them on your model. When complete, notify your TA so they may check your work. Station One: Spinal Cord Label the models of this station with the # that corresponds to the appropriate structure of the spinal cord and its protective structures using the colored tape. Spinal Nerves and Cervical Plexus Models Given article text here #9 lower subscapular nerve #13 medial pectoral nerve #2 long thoracic nerve #6 lateral pectoral nerve #10 axillary nerve #14 medial cutaneous nerve of arm #3 nerve to subclavius #7 upper subscapular nerve #11 median nerve #15 medial cutaneous nerve of forearm #4 suprascapular nerve #8 thoracodorsal nerve #12 radial nerve #16 ulnar nerve Station 4: Histology Sketch the slides available for today’s lab and specify the magnitude at which you are observing/ sketching. Be sure to identify and label your sketch with the corresponding structures listed beneath each slide. Spinal cord Anterior median fissure, Posterior median sulcus, Anterior white columns, Lateral white columns, Posterior white columns, Anterior gray horns, Lateral gray horns, Posterior gray horns, Anterior white horns, Posteriors gray commissure, Central canal Sympathetic ganglion Station Five: Lumbar Plexus Label the models of this station with the number that corresponds to the appropriate structure of the peripheral nervous system using the colored tape. When you are finished, ask your TA to check your labeling. Before leaving the station, remove all the labels you have placed on the model. Note: When labeling the nerves that exit the lumbar plexus, focus on their location, the connections between the nerves of the plexus and what they innervate. Also note any interesting characteristics you find, for example, which is the longest nerve? Make use of your textbook and atlas during this time. #1 iliohypogastric nerve #3 genitofemoral nerve #5 femoral nerve #2 ilioinguinal nerve #4 lateral cutaneous nerve of thigh #6 obturator nerve Station Six: Sacral Plexus Label the models of this station with the number that corresponds to the appropriate structure of the peripheral nervous system using the colored tape. When you are finished, ask your TA to check your labeling. Before leaving the station, remove all the labels you have placed on the model. Note: When labeling the nerves that exit the sacral plexus, focus on their location, the connections between the nerves of the plexus and what they innervate. Also note any interesting characteristics you find, for example, which is the longest nerve? Make use of your textbook and atlas during this time. #1 superior gluteal nerve #4 nerve to quadratus #7 posterior cutaneous nerve of thigh #10 tibial median plantar nerve #13 deep common fibular nerve #2 inferior gluteal nerve #5 nerve to obturator internus and superior gemellus #8 pudenal nerve #11 tibial lateral plantar nerve #3 nerve to piriformis #6 perforating cutaneous nerve #9 sciatic nerve #12 superficial common fibular nerve Reviewed by Hugh Jarrard, Assistant Professor, Oregon Institute of Technology on 4/29/20 Comprehensiveness rating: 3 see less The reviewer's concerns with the material revolve around its comprehensiveness and relevance. While there is a comprehensive list of vocabulary terms, no index or glossary is provided, forcing students to search elsewhere for definitions. The content accuracy is largely clear, but some exceptions exist, such as fill-in-the-blank exercises with unclear leader lines that can lead to confusion. The material covers the major topics required in a one-semester college-level Human Anatomy course, introducing each topic with clear learning objectives and background sections. However, the reviewer notes two concerns regarding relevance: 1. The lack of functional context for memorized anatomical structures strips the material from its interest, as students learn by location only without understanding their functions. 2. Many pre- and post-lab questions seem random and do not reinforce fundamental principles, particularly in reinforcing more central concepts applicable to all muscles. The laboratory manual's prose is tailored to its target audience, providing an accessible introduction to anatomical concepts for college students. The text defines general anatomical terms and uses relevant technical vocabulary to facilitate student learning and memorization. While additional resources may be required to fully comprehend unfamiliar terms, the supplement provided with the lab manual addresses this need. The consistency of the text's framework and terminology is commendable, although minor variations in illustration quality are present due to limitations in sourcing high-quality open-source figures. The manual's modular design, organized by organ system, enables clear division into manageable units for students. Each lab module can be used independently, with the exception of the Anatomical Terminology lab, which would logically precede other labs. However, this reviewer suggests presenting skeletal and muscular systems together in a regionally-based organization to enhance functional relevance. In contrast, the text currently groups bones and muscles separately, resulting in material that becomes focused on memorization rather than practical application. This layout may not effectively convey the relationships between anatomical structures and their movements. The manual focuses on human anatomy without considering gender or ethnicity. When gender is mentioned, it's presented equally between males and females. No gender-related pronouns are used in the text. I commend the author and her students for creating an open-source laboratory manual for a single-term undergraduate course in Human Anatomy. The subject requires selectivity due to its vastness and detail. While the omission of functional relevance was disappointing, I appreciate the effort and noble purpose behind this text.