

Study program: Integrated academic studies in medicine			
Type and level of the study program: integrated academic studies			
Course title: VARIATIONS IN ANATOMY (M2-VANT)			
Teacher: Babović S. Siniša, Erić M. Mirela, Krstonošić S. Bojana, Srdić Galić Đ. Biljana, Stojšić Džunja M. Ljubica			
Course status: elective			
ECTS Credits: 3			
Condition: /			
Course aim The aim of introducing this course is to provide students knowledge about the most common variations in human anatomy important for clinical practice.			
Expected outcome of the course: In the frame of the course of Anatomy, first year medical students had the opportunity to meet with the shape, appearance, position and relations of the basic anatomical structures of the body that are common to most people. However, anatomical features are subject to numerous variations that may occur in greater or lesser degree, depending on the population. Unlike congenital anomalies, anatomical variations are considered normal findings, which usually do not disturb physiological processes of the body. Some variations may be physical structures that influence or increase the predisposition to the development of certain diseases, as well as to change certain symptomatology of painful conditions or diseases. Many medical journals have some chapters or even issues devoted to anatomic variations, but recently there was a need for a magazine that deals exclusively with variations such as the International Journal of Anatomical Variations (IJava). Given the existence of a large number of variations, knowledge about them is essential for physicians in practice, which justifies the introduction of this course to basic medical studies. These findings will particularly benefit future surgeons, radiologists, physiatrists and dentists. Through lectures and practical work students will be trained to recognize and analyze the anatomical variations of certain areas of the human body as well as their impact on the painful symptoms of conditions or diseases in order to properly lead a clinical trial of patients with anatomical variations.			
Course description <i>Theoretical education</i> 1. Anatomical variations of the head. 2. Anatomical variations of the neck. 3. Anatomical variations of the chest and mediastinum. 4. Anatomical variations of the abdomen. 5. Anatomical variations of the urogenital tract. 6. Anatomical variations of the locomotor system. 7. Anatomic variations of the central nervous system. 8. Anatomical variations of sense organs <i>Practical education: exercises, other forms of education, research related activities</i> 1. Morphological characteristics of cranial variations. 2. The clinical significance of maxillofacial variations. 3. Anatomical basis of anesthesia in head and neck variations. 4. Subclavian and carotid arteries: variations and clinical significance. 5. Anatomical variation of the nasal cavity and paranasal sinuses. 6. Anatomical variations of the oral cavity. 7. Anatomical and functional variations of the organs of head. 8. Variations of deep interfacial neck spaces. 9. Anatomical variations of the chest wall, mediastinum and the lungs and heart. 10. Anatomical variations of the walls of the abdomen and certain organs. 11. Anatomical variations of the digestive tract. 12. Anatomical variations of the urogenital tract. 13. Anatomic variations of the upper and lower extremities: the understanding of clinical cases and the interpretation of certain clinical pictures. 14. Variations in the shape and structure of the central nervous system. 15. Variations in the shape and function of the sense organs. 16. Forensic significance of morphological and topographical variation of organs and blood vessels			
Literature <i>Compulsory</i> 1. Tubbs RS, Shoja MM, Loukas M. Bergman's Comprehensive Encyclopedia of Human Anatomic Variation. New Jersey: John Wiley & Sons; 2016. 2. Faiz O, Blackburn S, Moffat D. Anatomy at a Glance. 3 rd edition. New Jersey: John Wiley & Sons; 2011. 3. Schuenke M, Faller A. The human body. Stuttgart-New York: Thieme; 2004. 4. Drake R, Vogl W, Mitchell A. Gray's anatomy for students. 3 rd ed. London: Elsevier; 2014. 5. Moeller BT, Reif E. Pocket atlas of Radiographic Anatomy. 2 nd ed. Stuttgart-New York: Thieme; 2000. 6. Netter FH. Atlas of human anatomy. 6 th ed. London: Elsevier Health Sciences; 2014. 7. International Journal of Anatomical Variation. Available http://www.jav.org/ <i>Additional</i> 1. Students will be informed about necessary literature for each unit.			
Number of active classes			Other:
Lectures: 30	Practice: 15	Other types of teaching: Research related activities:	
Teaching methods: Lectures and practical classes			
Student activity assessment (maximally 100 points)			
Pre-exam activities	points	Final exam	points
Lectures	25	Written	40
Practices	25	Oral	
Colloquium		
Essay	10		