

## Information sheet for the course Anatomy I.

<b>University:</b> <i>Alexander Dubček University of Trenčín</i>	
<b>Faculty:</b> <i>Faculty of Health Care</i>	
<b>Course unit code:</b> <i>ANAT1/d</i>	<b>Course unit title:</b> <i>Anatomy I.</i>
<b>Type of course unit:</b> <i>compulsory</i>	
<b>Planned types, learning activities and teaching methods:</b> <i>Lecture: 2 hours weekly/26 hours per semester of study; full-time</i>	
<b>Number of credits:</b> <i>3</i>	
<b>Recommended semester:</b> <i>1<sup>st</sup> semester in the 1<sup>st</sup> year (full-time)</i>	
<b>Degree of study:</b> <i>I (bachelor)</i>	
<b>Course prerequisites:</b> <i>none</i>	
<b>Assessment methods:</b> <i>Written or oral examination (50 score points) - for obtaining the particular grades it is necessary to achieve:</i> <i>at least 45 score points for the grade A</i> <i>at least 40 score points for the grade B</i> <i>at least 35 score points for the grade C</i> <i>at least 30 score points for the grade D</i> <i>at least 25 score points for the grade E</i>	
<b>Learning outcomes of the course unit:</b> <i>The student will acquire knowledge by studying the subject, objectives and tasks of anatomy, its interdisciplinary position and a brief history. Student can explain the basic concepts of functional morphology and describe plane directions, surface topography and demonstrate knowledge of anatomical nomenclature and Latin terminology. The student will be able to demonstrate knowledge of the anatomy of passive and active components, musculoskeletal disorders and the central and peripheral nervous system. The student knows the structure and management of the cardiovascular, respiratory, digestive, excretory, reproductive, endocrine, autonomic nervous system, the regulatory systems of the body and sense organs.</i>	
<b>Course contents:</b> <ol style="list-style-type: none"> <li><i>1. Subject of anatomy, basic concepts, history. Organism - an open system with internal environment. Cell - anatomy, life manifestations, fundamentals of genetics.</i></li> <li><i>2. Tissues - epithelial tissue, connective tissue, muscle tissue, nervous tissue, and body fluids. Organs and organ systems. Basic concepts of ontogenetic development. The position of man in the animal kingdom and its phylogenetic development.</i></li> <li><i>3. The outer shape of the human body. Anatomical terminology. Plane axis directions.</i></li> <li><i>4. Respiration. Airways and organs, physiology of breathing, external and internal respiration, ventilation, distribution, diffusion and perfusion, respiratory mechanics, control of breathing.</i></li> <li><i>5. MSDs - basic concepts. Osteology - structure, function, composition and shape of bone development and bone growth, architectonics bone remodeling and bone healing. Arthrology - Joints, distribution, construction joint movements. Myology - building muscle and its external shape, terminology muscles, muscle activity analysis, the microstructure of the muscle fiber, the core muscle contraction, motor unit, intramuscular coordination of movement, anatomical and functional breakdown of muscle.</i></li> <li><i>6. Introduction to the nervous system - neuron, synapsa receptors, reflex, mobility management principle, structure and function of spinal cord injury, spinal nerves.</i></li> <li><i>7. Passive MSDs: Bones and joints of the upper limb - bones of upper limb girdle and the free limbs, their articular connections and ligamentous apparatus of the hand.</i></li> </ol>	

8. *Bones and joints of the lower limb - pelvis and lower limb bones free, searches pelvis, lower limb joints and ligamentous apparatus foot.*
9. *Axial skeleton - stands, their differences, and coccygeum sacrum, spine, spinal connections and ligamentous apparatus, shape and mobility of the spine.*
10. *The skeleton of the chest, the connection of the chest, breathing pohyby. Kostra skull, brain and facial part of the skull shape, connections cranial bones, cranial cavity, Temporomandibular Joint, kraniovertebrálne searches and ligamentous apparatus.*
11. *Active musculoskeletal disorders (neuromuscular component of the musculoskeletal system)*
12. *Muscles of the upper limb. Plexus cervikobrachiális. The muscles of the upper limb girdle, shoulder joint, the muscles controlling the elbow joint and forearm, wrist and hand muscles, muscles of the thumb. Fascia of the upper limb. Innervation of the upper limb. Muscles of the lower limb. Plexus lumbosacralis. The muscles of the hip, thigh muscles, lower leg muscles, muscles of the foot, arch of the foot.*
13. *Fascia of the lower limb. Innervation of the lower limb. Trunk muscles - dorsal group, chest muscles, the abdominal wall, the pelvic floor muscles. The muscles of the neck. Fascia neck and trunk. Innervation of the neck and torso. Facial muscles and masseter muscles, innervation.*

**Recommended of required reading:**

1. *MELLOVÁ, Y. , HEŠKOVÁ, G., VÝBOHOVÁ , D. , MELLO, M., KUNERTO VÁ, L. MARČEKOVÁ, M. Anatomia človeka pre nelekárske študijné programy. Martin: Osveta, 2010, 183 p. ISBN 978-80-8063-335-6.*
2. *DYLEVSKÝ, I. Somatológia. Martin: Osveta, 2003. 439 p. ISBN 80– 8063– 127-1.*
3. *ČIHÁK, R. Anatomie 1. Praha: Grada Publishing 2013. 552 p. ISBN 978- 80-247-3817-8.*
4. *ČIHÁK, R. Anatomie 2. Praha: Grada Publishing, 2013. 512 p. ISBN 978-80-247-4788-0.*
5. *ČIHÁK, R. Anatomie 3. Praha: Grada Publishing, 2013. 692 p. ISBN 978-80-247-1132-4.*
6. *NETTER FRANK H. Anatomický atlas člověka. Praha : Grada Publishing, 2005. 628 p. ISBN 80-247-1153-2.*
7. *LOVÁSOVÁ, K. – KLUCHOVÁ, D. Nový pohľad na topografiu štruktúr sluchového orgánu. Slovenský lekár. Máj-jún 2009: 105-109.*
8. *Osteologický Bulletin 1999, č.1, roč. 6, p.102 – 117.*
9. *Osteologický Bulletin 2001, č. 1, roč. 6, p. 2 – 45*
10. *KUBÍKOVÁ, E. - HIRJAK, D. - HISHAM EL FALOUGY, GMITTEROVÁ, K., – VARGA, I: Elongácia processus styloideus a osifikované ligamentum styloideum u 28-ročného muža. Medicínsky Monitor, 2009, 2, p. 1 –5.*
11. *PAVLOVČINO VÁ, G. Cerumen a hygiena zvukovodov. Edukafarm medinews, 2008, 1: 32.*
12. *BARTONÍČEK, J. - DŽUPA, V. - SKÁLA-ROSENBAUM, J., – DOUŠA, P., – PAZDÍREK, P: Zlomeniny proximálního femuru. Postgrad Med, 2005, 7, 5: 485 – 490.*
13. *HUTCHINSON MAT ET AL. Lidské tělo. Obrazový atlas latinsko – česko – anglický. C-Press, Brno 2007, 142 p. ISBN 80-251-0662-4.*

**Language:** Slovak

**Remarks:**

**Evaluation history:** Number of evaluated students - 775

A	B	C	D	E	FX
24.97%	25.87%	17.85%	9.18%	13.97%	8.15%

**Lectures:** doc. MUDr. Jana Slobodníková, CSc.

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**Supervisor:** doc. MUDr. Juraj Čelko, CSc.