

Information sheet for the course Kinesiology and Pathological Kinesiology II.

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| University: <i>Alexander Dubček University of Trenčín</i> | |
| Faculty: <i>Faculty of Health Care</i> | |
| Course unit code: <i>KIN2/d</i> | Course unit title: <i>Kinesiology and Pathological Kinesiology II.</i> |
| Type of course unit: <i>compulsory</i> | |
| Planned types, learning activities and teaching methods: <i>Lecture: 2 hours weekly/26 hours per semester of study; full-time</i> | |
| Number of credits: <i>3</i> | |
| Recommended semester: <i>4th semester in the 2nd year (full-time)</i> | |
| Degree of study: <i>I (bachelor)</i> | |
| Course prerequisites: <i>Kinesiology and Pathological Kinesiology I.</i> | |
| Assessment methods: <i>The student will acquire 50 points per semester:</i> <i>- Active participation in lectures.</i> <i>- Test (50 points).</i> <i>To obtain the score A must be obtained at least 48 points, score B - 44 points, score C - 41 points, score D - 38 points and score E at least 35 points.</i> | |
| Learning outcomes of the course unit: <i>The student is able to recognize pathological manifestations affecting the muscles and joints. Can describe the subsystems of musculoskeletal system (postural, locomotor, handling, communication and respiratory) and to identify the most common symptoms of pathology in various subsystems, with a focus on manipulative, communication and respiratory subsystem. The acquired knowledge is able to apply in practice. The student is thus able to diagnose impaired function of grip and respiratory.</i> | |
| Course contents: Lectures: <ol style="list-style-type: none"><i>1. Functional parts of musculoskeletal system (system postural, locomotor, handling, communication and respiratory).</i><i>2. Fine motor skills:</i><i>3. handling system (kinesiological analysis of upper limbs, lateral differentiation, grip),</i><i>4. communication system (optomotoric, mastication function, phonation and mimic function).</i><i>5. Respiratory motor skills (respiratory muscles, the respiratory cycle phases, facilitation and inhibition of musculoskeletal system by breathing, physiological and pathological respiratory stereotype).</i><i>6. Muscle as effector of locomotor system:</i><i>7. muscle anatomy (muscle fiber types, types of muscle contractions, the basic characteristics of muscle tissue, muscle reaction to static and dynamic load, muscle motor unit).</i><i>8. Pathology in muscle (fasciculations and myoclonus, Parkinson's and intention tremor, chorea minor and athetosis, paroxysms, spasms, contractures, muscle hypotone and hypertone).</i><i>9. muscle tone and its regulation.</i><i>10. Pathology at the joints (joint play, capsular pattern).</i><i>11. Kinematic chains (open and closed kinematic chain, chain mobility):</i><i>12. chaining muscle activity (muscle loop, muscular chain),</i><i>13. muscle chains of axial system,</i> | |

14. chaining of musculoskeletal disorders.

15. Sensomotor integration.

16. Pain and its effects on the musculoskeletal system (pain, types of pain, nociception, gate theory of pain, referred pain).

Recommended of required reading:

1. VÉLE, F.: 2007. *Kineziologie -Přehled klinické kineziologie a patokineziologie pro diagnostiku a terapii poruch pohybové soustavy.* Triton, 2007, ISBN 80-7254-837-9.
2. DYLEVSKÝ, I.: 2009. *Kineziologie – Základy strukturální kineziologie.* Triton, 2009, ISBN 978-80-7387-324-0.
3. DYLEVSKÝ, I.: 2009. *Speciální kineziologie.* Grada, 2009. ISBN 978-80-247-1648-0.
4. KOLÁŘ, P. et al.: 2010. *Rehabilitace pro klinickou praxi.* Galén, 2010, ISBN 978-80-7262-6571.
5. LÁNIK, V.: 1990. *Kineziológia.* Osveta, 1990, ISBN 978-80-2170-136-6.
6. VÉLE, F.: 2012. *Vyšetření hybných funkcí z pohledu neurofyzologie.* Triton, 2012. ISBN 97-80-7387-608-1.

Language: Slovak

Remarks:

Evaluation history:

| A | B | C | D | E | FX |
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Lectures: doc. MUDr. Juraj Čelko, PhD., Mgr. Patrícia Baňárová

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