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|-------------------------------------|---|--------|
| <b>Subject</b>                      | <b>PHYSIOLOGY</b>   |        |
| <b>Study program</b>                | <b>Three years of graduate studies for speech therapist</b>   |        |
| <b>Code</b>                         | SL-116  |        |
| <b>Academic year</b>                | First (I)   |        |
| <b>Semester</b>                     | First(I)  |        |
| <b>Classes, total</b>               | 55  |        |
| <b>Credits</b>                      | 3.5   |        |
| <b>Subject type</b>                 | Obligatory  |        |
| <b>Prerequisites</b>                | No  |        |
| <b>Held by</b>                      | Institute of physiology and anthropology  |        |
| <b>Professor-Lecturer in charge</b> | Prof d-r Vesela Maleska - Ivanovska   |        |
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| <b>Key words</b>                    | Professional studies for nurses and technicians, basic subjects, physiology   |        |
| <b>Study goals</b>                  | <ul style="list-style-type: none"> <li>▪ Understanding of the normal operation of of the human body.</li> <li>▪ Understanding of the functioning of certain systems.</li> </ul>   |        |
| <b>Brief description</b>            | <p><b>Theoretical classes:</b></p> <ul style="list-style-type: none"> <li>▪ Functional mechanisms of homeostasis.</li> <li>▪ Cell physiology.</li> <li>▪ Physiology of blood</li> <li>▪ Cardiovascular physiology.</li> <li>▪ Physiology of the respiratory system.</li> <li>▪ Physiology of gastrointestinal system.</li> <li>▪ Physiology of metabolism, physiological functions of the liver and thermoregulation.</li> <li>▪ Physiology of the urinary system.</li> <li>▪ Physiology of the nervous system.</li> <li>▪ Physiology of the endocrine system.</li> </ul> <p><b>Laboratory practice:</b></p> <ul style="list-style-type: none"> <li>• Blood and blood elements.</li> <li>▪ Heart and circulation.</li> <li>▪ Respiration.</li> <li>▪ Senses.</li> </ul> |        |
| <b>Organization</b>                 | Theory lectures: 30<br>Laboratory practic lectures: 15<br>Seminars: 10  |        |
| <b>Learning methods</b>             | Interactive lectures, laboratory practice and seminars.   |        |
| <b>Expected results</b>             | <p><b>Knowledge and understanding:</b> The student will be able to know the functional characteristics and processes of organic systems and will be able to learn about the interrelationships and influences the control and regulation mechanisms of the human organism.</p> <p><b>Key skills:</b> The student will be able to indicate the physiological processes and their regulatory mechanisms that take place in organic systems and will highlight their mutual influences.</p>  |        |
|                                     | The student is obliged to actively monitor all the activities, including participating in continuous knowledge checks to get a signature.   |        |
|                                     | Scoring the student activites:  |        |
|                                     | Type of activity  | Points |

|                                      |  |            |             |
|--------------------------------------|--|------------|-------------|
| <b>Specific recommendations</b>      |  | <b>Min</b> | <b>Maks</b> |
|                                      | Theoretical classes  | 6          | 10          |
|                                      | Practical classes  | 16         | 20          |
|                                      | Seminar  | 8          | 10          |
|                                      | Continuous checks -  | 15         | 30          |
|                                      | Final exam   | 15         | 30          |
|                                      | <b>Total:</b>  | <b>60</b>  | <b>100</b>  |
|                                      | <p><b>Knowledge assessment criteria:</b></p> <p>1. A 60% Point Score Minimum (per examination) is needed in order to attend final exam</p> <p>2. If PSM (Point Score Minimum) not obtained, the student is allowed a complete final exam (the colloquial exam and final exam included).</p>  |            |             |
| <b>Contiuous knowledge assesment</b> | <p><b>Continuous checks of knowledge - 1 tests (written)</b></p> <p>Cell physiology, physiology of respiration, cardiovascular physiology, physiology of gastrointestinal system, physiology of metabolism, physiology of the liver and thermoregulation<br/>15-30 points</p> <p><b>Final exam: written</b><br/>Physiology of the urinary system , nervous system and endocrine system<br/>15-30 points</p> <p><b>Complete final exam*:</b> test is a combination of continuous check which has not been passed and final exam.<br/>* Student completed and / or complete the final examination may occur only after receiving credits (passed) on the subject anatomy.<br/>*Assessment of the overall exam is obtained according to the table grades, based on the sum of points from all activities, including continuous checks and points from every part of the final or complete the final exam.</p> |            |             |
| <b>Recommended literature</b>        | <ol style="list-style-type: none"> <li>1. Guyton AC, Hall JE. Textbook of Medical Physiology 12<sup>th</sup> edition. Elsevier, London, 2011</li> <li>2. Dejanova B, Petrovska S, Todorovska L. Physiology of certain organ systems. Skopje, 2012</li> <li>3. Selected chapters of physiology (internal script of Institute of physiology), Skopje,2009</li> <li>4. Efremovska Lj and all. Practicum in Physiology. Skopje 2012</li> <li>5. Despopoulos A, Silbernagl S. Color atlas of Physiology. New York, 2003</li> <li>6. Costanzo LS. Physiology Elsevier, London, 2006</li> </ol>   |            |             |