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| <b>Subject</b>               | <b>OCCUPATIONAL MEDICINE AND ERGONOMICS</b>  |
| <b>Study program</b>         | <b>THREEYEAR PROFESSIONAL STUDIES FOR GRADUATE PHYSIOTHERAPIST</b>   |
| <b>Code</b>                  | <b>SF 321</b>  |
| <b>Academic year</b>         | <b>Third (III)</b>   |
| <b>Semester</b>              | <b>Sixth (VI)</b>  |
| <b>Number of lessons</b>     | <b>65</b>  |
| <b>Credits</b>               | <b>3</b>   |
| <b>Type of subject</b>       | <b>Mandatory</b>   |
| <b>Conditional criteria</b>  | <b>Completed criteria for Third year</b>   |
| <b>Realization</b>           | <b>Chair of Occupational Medicine</b>  |
| <b>Responsible teachers:</b> | Prof. d-r Jovanka Karadzinska Bislimovska, Head of Chair,<br>Prof d-r Elisaveta Stikova  |
| <b>Address</b>               | <b>Institute of Occupational Health of RM, WHO Collaborating Center for Occupational Health</b><br>II Makedonska brigada br 43, 1000 Skopje<br>tel/faks 2 621 428, 3 110 491, e-mail: occhemed@on.net.mk   |
| <b>Key words</b>             | Studies for graduate physiotherapist, professional subjects, occupational medicine, ergonomics   |
| <b>Teaching goals</b>        | Adoption of the basic knowledge of occupational medicine and ergonomics  |
|                              | <b>Lectures ( 20 hours)</b> <ul style="list-style-type: none"> <li>• Occupational health, Health and Safety at work( workplace, working conditions, working environment), physiology and psychology of work;</li> <li>• Occupational risks and occupational hazards</li> <li>• Occupational diseases, work-related diseases and injuries at work</li> <li>• Preventive measures, basic principles of work ability assessment, Occupational rehabilitation</li> </ul> |

|                                     | <ul style="list-style-type: none"> <li>• Health promotion at workplace, The role of physiotherapist in multidisciplinary team</li> <li>• Introduction to ergonomics-main principles, humanization of the work, human-machine interaction, Ergonomic anthropometry, Work organization</li> <li>• Workplace analysis, Ergonomic design</li> <li>• Methods, models and strategies of ergonomic interventions,</li> <li>• Evaluation of programs for intervention,, Ergonomics and professional development</li> </ul> <p><b>Practical education-exercises (15 hours)</b></p> <p>Adoption of the basic methods for functional assessment of systems engaged in the work (sight, hearing, cardio-respiratory system, musculoskeletal system etc.) , anthropometric methods, psycho diagnostics.</p> <p><b>Practical work ( 30 hours)</b></p> <p>Case reports and problem solving in the practice. Practical work is mandatory and it is held in the Institute of Occupational Health of RM, within full working time. The students are obligated to keep a log of their activities. The students make an ergonomic assessment of working conditions in patients from different workplaces.(application of the questionnaire for European working conditions survey)and adopt the recommendations for prevention and promotion of health at work.</p> |                         |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
|-------------------------------------|---|-------------------------|---------------|--|-------------|-------------|-----------|-----|----|-----------------------|-----|----|-------------------|----|----|------------------------|----|----|
| <b>Organization</b>                 | <p><b>Lectures: 20 hours</b><br/> <b>Exercises: 15 hours</b><br/> <b>Practical work: 30 hours</b></p>   |                         |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
| <b>Teaching methods</b>             | Lectures with interactive approach; Practical education, Practical individual work  |                         |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
| <b>Anticipated teaching results</b> | <p>Knowledge and understanding:<br/> The student will acquire the knowledge and understanding about the link between the health and work, he/she will adopt the ergonomic principles of work and basic elements of prevention and promotion at workplace.</p> <p>Skills:<br/> The student will enable to apply acquired knowledge in the practice.</p>  |                         |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
|                                     | <p>In order to get a signature, the student is obligated to follow actively all planned activities including the continual knowledge assessments.</p> <table border="1" data-bbox="523 1711 1126 1915"> <thead> <tr> <th rowspan="2"><b>Type of activity</b></th> <th colspan="2"><b>Points</b></th> </tr> <tr> <th><b>Min.</b></th> <th><b>Max.</b></th> </tr> </thead> <tbody> <tr> <td>Lectures*</td> <td>7.5</td> <td>15</td> </tr> <tr> <td>Practical education**</td> <td>7.5</td> <td>15</td> </tr> <tr> <td>Practical work***</td> <td>10</td> <td>15</td> </tr> <tr> <td>Continual assessment-I</td> <td>20</td> <td>30</td> </tr> </tbody> </table>   | <b>Type of activity</b> | <b>Points</b> |  | <b>Min.</b> | <b>Max.</b> | Lectures* | 7.5 | 15 | Practical education** | 7.5 | 15 | Practical work*** | 10 | 15 | Continual assessment-I | 20 | 30 |
| <b>Type of activity</b>             | <b>Points</b>   |                         |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
|                                     | <b>Min.</b>   | <b>Max.</b>             |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
| Lectures*                           | 7.5   | 15                      |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
| Practical education**               | 7.5   | 15                      |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
| Practical work***                   | 10  | 15                      |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |
| Continual assessment-I              | 20  | 30                      |               |  |             |             |           |     |    |                       |     |    |                   |    |    |                        |    |    |

|                             |   |                 |
|-----------------------------|---|-----------------|
| <b>Knowledge assessment</b> | Practical exam  | 15 - 25         |
|                             | <b>Total</b>  | <b>60 - 100</b> |
|                             | <p><b>*attendance at lectures,</b><br/> 51%-60% - 7.5 points<br/> 61%-70% - 9.5 points<br/> 71%-80% - 12 points<br/> 81%-90% - 13 points<br/> 91%-100% -15 points</p>   |                 |
|                             | <p><b>** practical education ( 15 exercises)</b><br/> Attendance (each exercise): 0.5 points<br/> Active participation at exercise: 0.5 points</p>  |                 |
|                             | <p><b>*** practical work</b><br/> 51%-60% - 10 points<br/> 61%-70% - 11 points<br/> 71%-80% - 12 points<br/> 81%-90% - 13 points<br/> 91%-100% -15 points</p>   |                 |
|                             | <p><b>Conditional criteria:</b><br/> In order to attend the continual assessment, the student is obligated to attend all the lectures and practical work. The continual knowledge assessment is conducted in a written form. Practical part of the exam is conducted after the completion of practical work and it includes an assessment of practical knowledge and skills, the completed log of activities and student's engagement.<br/> The final grade is obtained according to the table of grades, based on the number of points obtained from all anticipated activities including the continual assessment and practical part of the exam.<br/> The student has to acquire minimum points (60%) obtained from continual assessment and practical exam on contrary he/she must take the complete final exam.<br/> Complete final exam: The exam is conducted in a written form and/or practical work. It includes the continual assessment and/or practical part of exams if the student did not acquire the minimum points expressed as 60% of the maximum points.</p> |                 |