

Subject	Health Statistics and Informatics
Study program	SF
Code	SF - 122
Academic year	First
Semester	II
Total hours	45
Credits	3
Type of subject	Compulsory
Prerequisites	None
Performed by	Department of Epidemiology, Biostatistics and Medical Informatics
Responsible Educator	Prof. Dr. Vesna Velic Stefanovska
Address:	Institute of Epidemiology, Biostatistics and Medical Informatics, Faculty of Medicine, Vodnjanska Str bb 1000 Skopje, Tel: +389 2 3114825, e-mail: i@medf.ukim.edu.mk
Keywords:	Studies for physiotherapists, health care, informatics
Educational goals	<ul style="list-style-type: none"> <li>• To learn how to use computers in health care for personal and educational purposes.</li> <li>• To acquire the skill to assess the validity of results of epidemiological and clinical studies.</li> </ul>
Brief content (excerpt)	<p><b>Theory 5 hours:</b></p> <ul style="list-style-type: none"> <li>• Introduction to Informatics and Health Statistics, statistical totality (statistical units, statistical mass) and representative study.</li> <li>• Types and characteristics of statistical data (variables) and statistical series</li> <li>• Demographics</li> <li>• International Classification of Diseases, injuries and Causes of death (X revision); Specific Mortality by cause of death (LPIS)</li> <li>• Information-basic terms, definitions and biomedical systems of scientific information and technology</li> </ul> <p><b>Practical teaching:</b></p> <p><b>Informatics (20 hours):</b></p> <ul style="list-style-type: none"> <li>• Fundamentals of the Information Technology and Informatics in Healthcare</li> <li>• Hardware and Software and biomedical databases - sources, ways of searching</li> <li>• Microsoft Office: Word</li> <li>• Microsoft Office: Excel</li> <li>• Microsoft Office: Power Point</li> <li>• Statistica Fort Windows</li> </ul>

	<p><b>Statistics (20 hours)</b></p> <ul style="list-style-type: none"> <li>• Tabular and graphical display of statistical series</li> <li>• Analysis of series with qualitative data</li> <li>• Dynamic indexes</li> <li>• Analysis of series with quantitative data</li> <li>• Measures of variability (standard deviation)</li> <li>• <math>\chi^2</math> test</li> <li>• Correlation</li> <li>• Seasonal index</li> <li>• Trend</li> <li>• Method of sampling and determining sample size</li> <li>• t-test</li> <li>• Vital Statistics</li> </ul>												
Organization	Theory: 5 hours; Practical Teaching: 40 hours												
Methods of Learning	Lectures, tutorials												
Specific recommendations	<p>The student is responsible to actively monitor all provided activities. Scoring of the student activities:</p> <table border="1"> <tr> <th>Type of activity</th><th>Points</th></tr> <tr> <td>Academic lectures*</td><td>10</td></tr> <tr> <td>Practical classes</td><td>20-40</td></tr> <tr> <td>Continuous checking 1</td><td>15-25</td></tr> <tr> <td>Continuous checking 2</td><td>15-25</td></tr> <tr> <td>Total:</td><td>60-100</td></tr> </table> <p><b>Conditional criteria:</b> The student is required to score minimum points of theoretical and practical training to access the presentation. Continuous checking (statistics) is written and is performed after the completion of lectures and exercises. Assessment of the overall exam is obtained according to the table of estimates, based on the sum of points from all activities. The student is obliged to score minimum points (60%) of continuous checking, otherwise, there is a final exam. Final Exam: The exam consists of a written and oral part. It consists of the continuous checks when the student did not win minimum points.</p>	Type of activity	Points	Academic lectures*	10	Practical classes	20-40	Continuous checking 1	15-25	Continuous checking 2	15-25	Total:	60-100
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Teaching aids	<p><b>Basic:</b></p> <ul style="list-style-type: none"> <li>- Biostatistics, by group of authors from the Department of Epidemiology, Faculty of Medicine, Skopje</li> <li>- Authorized lectures of the Department</li> </ul>												