

Subject	HYGIENE AND ECOLOGY	
Study program	Three year studies for graduated nurses/technicians	
Code	SMS/T-215	
Year of studies	Second	
Semester	Third	
Total number of classes	55	
Credits	2	
Type of subject	Obligatory	
Pre-requisites	Fulfilled condition for enrolment in 2 nd year	
Executing chair	Chair of Hygiene	
Teacher in charge	Prof. Mihail Kochubovski, MD, PhD	
Contact	Chair of Hygiene, Institute of Public Health of the Republic of Macedonia, 50. Divizija 6, 1000 Skopje, Republic of Macedonia. Tel: +38923125044, email: kocubov58@yahoo.com	
Objectives	<p>To achieve knowledge for scientific and practical aspects of hygiene and environmental health.</p> <p>To become aware for environmental risks, adverse health effects related to environmental exposure, preventive measures for reduction of environmental exposure</p> <p>To achieve knowledge for food safety, food borne diseases and healthy nutrition.</p>	
Summary	<p><u>Theoretical lectures (30 classes)</u></p> <ul style="list-style-type: none"> - Hygiene (definition, methods, area of work) - Eco-toxicology - Risk assessment and eco-oncology - Environmental health: air pollution, drinking water, ionizing and nonionizing radiation, noise, waste management with particular emphases to medical waste and regulations. - Climate change, heat and cold waves - Hygiene standards for health care institutions and schools - Hygiene of food safety and nutrition [food quality and food safety, food supplements and food fortification, nutritional status assessment, the importance of nutrition to healthy people and those with special nutritional needs (children, adults, sportsmen, pregnant and lactating women), malnutrition. <p><u>Practical exercises(25 classes)</u></p> <ul style="list-style-type: none"> - Monitoring of air quality and adverse health effects - Physical hazards from the environment - Drinking water, laboratory testing, field survey of water supplying objects - food safety and nutrition: the students prepare joint project and implement it in practice - School hygiene - Functioning of the health system, from preventive medicine point of view, during natural and anthropogenic catastrophes (war, refugees, floods, earthquake) hygiene of proper housing, organization and implementation of disinfection, disinsection, deratisation and decontaminaton. 	
Organisation	Theoretical: 30 classes Seminars: 25 classes	
Learning methods:	Lecturing, practice	
Foreseen results:	<p><u>Knowledge and understanding</u> The student will gain basic knowledge in the area of hygiene and ecology.</p> <p><u>Key skills</u> The student will implement the basic principles of hygiene and ecology.</p>	
Specific recommendations for the teaching process	<p>The student is obliged to actively follow all foreseen activities, including the participation in the continuous assessment of knowledge, in order to receive the approval of attendance.</p> <p><u>Scoring of activities</u></p>	

	<table border="1" data-bbox="810 226 1418 394"> <thead> <tr> <th>Type of activity</th> <th>score</th> </tr> </thead> <tbody> <tr> <td>Theoretical</td> <td>7.5-12.5</td> </tr> <tr> <td>Practical</td> <td>7.5-12.5</td> </tr> <tr> <td>Continuous assessments of knowledge</td> <td>45-75</td> </tr> <tr> <td>Total</td> <td>60-100</td> </tr> </tbody> </table> <p data-bbox="810 432 1418 752"> <u>Participation in theoretical lectures:</u> 51%-60% - 7.5 points 61%-70% - 8.5 points 71%-80% - 9.5 points 81%-90% - 11 points 91% -100% - 12.5 points <u>Participation in practical exercises (25 lessons), 0.5 points per lesson</u> Participation – 0.2 points Activity – 0.3 points </p>	Type of activity	score	Theoretical	7.5-12.5	Practical	7.5-12.5	Continuous assessments of knowledge	45-75	Total	60-100
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Continuous assessments of knowledge	<p data-bbox="418 757 1418 987"> <u>Colloquium</u> The student is obliged to be regularly present at theoretical and practical parts of the lessons and to participate in the knowledge assessment. The assessment is MCQ test. The student must participate at the colloquium, in opposite he/she will not receive approval of attendance at the subject at the end of the semester. The student must score 60% or more, at the first colloquium, and if the first one is passed, 60% at the second colloquium, in opposite he must show-up at the final exam. </p> <p data-bbox="418 1016 1418 1144"> <u>Final exam</u> If the student had not scored min. 60% at the first, and if the first one is passed, 60% at the second colloquium, he/she shows up at the Final exam. The final exam is passed if the student scores 60% or more. </p> <p data-bbox="418 1173 1418 1272"> <u>Forming the grade</u> The grade for the subject is formed according to the grading table and as e result of the total score for the activities, including the continuous assessments of knowledge. </p> <p data-bbox="418 1301 1418 1464"> IRREGULAR STUDENTS 40% of the regular theoretical and practical study is executed. The exam, at the exam sessions, is consisted of MCQ test. The grade for the subject is formed according to the grading table and as e result of the total score for the activities. </p>										
Textbooks	<p data-bbox="418 1473 1418 1536">Gjorgjev D, Kochubovski M, Kendrovski V, Ristovska G. Hygiene and environmental health. Skopje: Faculty of Medicine, 2008.</p> <p data-bbox="418 1541 1418 1603">Gjorgjev D, Kendrovski V, Ristovska G, Dimitrovska Z. Food hygiene and nutrition. Skopje: Faculty of Medicine, 2008.</p> <p data-bbox="418 1608 1418 1628">Wallace RB, editor. Public Health and Preventive Medicine. New York: McGraw-Hill; 2008.</p>										