

<b>Study program:</b> Integrated academic studies of Medicine
<b>Course title:</b> Hygiene
<b>Teacher:</b> Marija R. Jevtić, Jelena M. Bjelanović, Sanja V. Bijelović, Milka B. Popović, Radmila S. Velicki
<b>Course status:</b> compulsory
<b>ECTS Credits:</b> 4
<b>Condition:</b> Infectious diseases (exam), Epidemiology (exam)
<b>Course aim</b> To train general physicians (family physicians) for preventive and prophylactic work.
<b>Expected outcome of the course:</b> <b>Knowledge</b> - Preventive work in the field of environmental protection. Promotion of healthy diet. Food safety. Prevention of non-communicable diseases. <b>Skills</b> - Design and application of prevention programs in the field of environment protection and human health.
<b>Course description</b> <i>Theoretical education</i> 1. Hygiene – science on health. Health in 2020. Health and health maintenance. 2. Atmosphere, climate, micro-climate - health impacts. Air pollution: sources, properties and prevention. Health effects of air pollution. 3. Noise in an urban environment. Noise health effects and prevention. Non-ionizing and ionizing radiation. Impacts on health, prevention of adverse effects. 4. Types of water origin and characteristics. Objects of water supply. Safety and importance of water. Purification and treatment of drinking water. 5. Health aspects of waste management. Risk management in communities. 6. Community hygiene. House hygiene. Hygiene in public facilities. Proceedings of primary health care in emergencies. 7. Hygiene of the school environment. School environment and health. 8. Planning and construction of health facilities. Risk management in health care facilities. 9. Personal hygiene. Personal hygiene of health care workers. 10. Nutrition and health. Energy needs. Physiological and daily needs and sources of nutrients. 11. Physiological and daily requirements and sources of vitamins. Physiological and daily requirements of minerals. 12. Food hygiene - of animal and plant origin. Genetically modified food. Nutraceuticals. Allergy and food intolerance. 13. Food safety. Foodborne diseases. Safety of items for general use. 14. Medical nutrition therapy and prevention of disease caused by overeating. Medical nutrition therapy and prevention of malnutrition and specific nutritional deficits. Medical nutritional prevention and therapy of noncommunicable diseases. 15. Improving the nutrition of the population. 16. Mental hygiene and mental health.  <i>Practical education</i> 1. Ecological interpretation of health and disease. 2. Influence of climate and microclimate on human health. 3. Air Quality - mutual influences of the WHO recommendations, the EU and national legislation. 4. Measurement of light: tasks. Ultraviolet radiation and health. Importance of UV Index in assessing health risks. Ionizing radiation in the environment. Health risk assessment. 5. Sampling drinking water. Disinfection of drinking water. 6. Recommendations on drinking water safety. 7. Ecological waste disposal – environmental risk control - preparation for writing an Essay. 8. Ecological waste disposal – Essay presentation. 9. Promotion of personal hygiene and hand hygiene - essay. 10. Good hygiene practices in health care facilities - preparation for writing an Essay. 11. Good hygiene practices in health care facilities - preparation for writing an Essay. 12. Environmental risk management - preparation for writing an Essay. 13. Environmental risk management - essay presentation. 14. Assessment of the nourishment status. Calculating energy requirements. 15. Calculation of daily nutrients. 16. Calculation of daily needs for hydrosoluble and liposoluble vitamins. 17. Calculation of daily needs for minerals: macroelements and microelements. Essay preparation. 18. Nutrition survey. Diet plan. Theoretical approach. 19. Designing a nutrition plan and a questionnaire. - Essay. 20. Seminar on nutrition. Seminar on nutrition planning. 21. Planning supplementary meals at school. 22. Food safety – Essay preparation. 23. Activity of general practitioners in cases of food-borne epidemics – student presentation. 24. Promotion of healthy nutrition policies. Students' suggestions - presentations. 25. Visit to the National Seed Laboratory. 26. Medical nutrition therapy in cases of undernutrition and obesity. 27. Basic principles of medical nutrition therapy. 28. Medical nutrition therapy of noncommunicable diseases.
<b>Literature</b> <i>Compulsory</i> 1. WHO. PREVENTING DISEASE THROUGH HEALTHY ENVIRONMENTS: A GLOBAL ASSESSMENT OF THE BURDEN OF DISEASE FROM ENVIRONMENTAL RISKS. World Health Organization, Switzerland 2016 2. WHO. MONITORING AMBIENT AIR QUALITY FOR HEALTH IMPACT ASSESSMENT, WHO Regional Publications, European Series, No. 85, Copenhagen, 2003.

3. WHO. GUIDELINES FOR DRINKING – WATER QUALITY, World Health Organization, 3rd Edition, Geneva, 2011.
4. WHO. HEALTH-CARE WASTE. World Health Organization
5. WHO . BURDEN OF DISEASE FROM ENVIRONMENTAL NOISE. QUANTIFICATION OF HEALTHY LIFE YEARS LOST IN EUROPE. World Health Organization 2011
6. WHO. IONIZING RADIATION, HEALTH EFFECTS AND PROTECTIVE MEASURES. World Health Organization 2016
7. WHO. FOOD SAFETY. WHO. Basic Food Safety for Health Workers. Geneva, World Health Organization
8. DIET, PHYSICAL ACTIVITY AND HEALTH, ILSI, Europe
9. WHO. DIET, NUTRITION AND THE PREVENTION OF CHRONIC DISEASE, WHO Technical Report Series 916, Geneva, 2003.
10. WHO. Hand Hygiene. WHO guidelines on hand hygiene in health care, WHO, Geneva, 2009
11. WHO. PROMOTING MENTAL HEALTH. CONCEPTS, EMERGING EVIDENCE, PRACTICE. World Health Organization 2005.

*Additional*

1. <http://www.efsa.europa.eu>
2. <http://www.codexalimentarius.net>
3. <http://ec.europa.eu/food>
4. <http://www.who.int>
5. <http://www.eufic.gov>
6. <http://www.cdc.gov>

<b>Number of active classes</b>	<b>Theoretical classes: 30</b>	<b>Practical classes: 45</b>	
<b>Teaching methods:</b> lectures; practice; essay			
<b>Student activity assessment (maximally 100 points)</b>			
<b>Pre-exam activities</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
Lectures	5	Written	70
Practices	5	Oral	
Colloquium		.....	
Essay	20		