

EPIDEMIOLOGY	
GENERAL INFORMATION	
Course coordinator	Professor Josip Milas, MD, PhD
Assistant/Associate	Professor Maja Miškulin, MD, PhD Asst. Prof. Ivan Miškulin, MD, PhD Danijela Nujić, PhD
Study Programme	Integrated undergraduate and graduate university study of Medicine
Status of the course	Mandatory
Year of study, semester	5 th year; 10 th semester
ECTS	2
Workload (hours)	Lectures (30); Seminars: (15); Exercises: (15)
Expected number of students	70
COURSE DESCRIPTION	
Course objectives	
To train the student to apply epidemiological principles and epidemiological methods in future medical work, within any specialization and any future scientific education.	
Enrolment requirements and entry competencies	
There are no prerequisites	
Learning outcomes at the Programme level	
1.1, 2.1, 2.2, 2.3, 3.2. 3.3, 3.4, 3.5, 4.2	
Learning outcomes (5-10)	
<p>After attending lectures, completing seminars and exercises, demonstrating the ability to study independently and after passing the exam, students will be able to:</p> <ol style="list-style-type: none"> 1. to choose an appropriate epidemiological approach in synthesizing health and other facts necessary in the assessment and evaluation of the health and/or disease of each individual (patient) and/or community in care (holistic approach) 2. choose one or more epidemiological functions and know how to adapt and apply them in everyday professional medical work with individuals (patients) and/or the community in care 3. to choose epidemiological methods in predicting and/or judging the quality of one's own work, as well as for evaluating the health/disease of an individual (patient) and/or the community it cares for 4. recognize and apply the elements of the epidemic process and the epidemiological chain for a holistic and personalized approach in creating greater health or reducing the disease of the individual and/or the community in which the individual lives 5. in daily practice, design and apply procedures based on clinical data and epidemiological methods for early and timely detection of health disorders and/or diseases in individuals and/or in the community in care, especially using elements of primary prevention combine the elements of the epidemiological approach with clinical data in infectious and non-infectious case studies in everyday practice 	
Course content	
Lectures	

Introduction to epidemiology, Historical development of epidemiology, Why epidemiology, Basic epidemiological functions, Epidemiological approach, Research in epidemiology, Descriptive epidemiology, Analytical epidemiology, Epidemic process, Natural course and spectrum of diseases, Epidemiological chain, Manifestation of the epidemic process, Diagnostic tests, Early and timely detection of diseases, vaccines and vaccinations

Seminars

Tuberculosis and resistance to antituberculosis drugs, Meningococcal infection and other meningitis, Whooping cough, Legionellosis, Mumps, Streptococcoses: A38, A46, J02+J30, Strawmoniasis, Alimentary toxic infections and intoxications, Enterocolitis and shigellosis, Gonorrhoea, Syphilis, Helminthoses: small roundworm, Rotavirus, Viral hepatitis B, Viral hepatitis C, Chlamydia and trichomoniasis, HPV, HIV and AIDS, Mycoplasma and ureaplasma infections, Scabies and head lice, Transmissible diseases, Zika virus, West Nile virus, Coronaviruses: epidemiological significance in the last 20 or so years, Coronavirus: the epidemiological significance of COVID-19, Coronavirus: vaccines against COVID-19, Coronavirus: the response of the Croatian community to the COVID-19 challenge, Coronavirus: the shortcomings of the vaccination system in the Republic of Croatia against COVID-19, Coronavirus: the advantages of the vaccination system in the Republic of Croatia against COVID-19, Cardiovascular diseases in the Republic of Croatia, Cerebrovascular diseases in the Republic of Croatia, Ischemic heart disease in the Republic of Croatia, Obesity in the Republic of Croatia, Epidemiology of diabetes in the Republic of Croatia, Epidemiology of cancer and in the Republic of Croatia and OBŽ, Causes and prevention of accidents in the Republic of Croatia, Suicides in the Republic of Croatia, causes and prevention, Road traffic accidents in the Republic of Croatia, causes and prevention, OTHER INFECTIOUS AND CHRONIC DISEASES, DEPENDING ON THE EPIDEMIOLOGY SITUATION

Exercises

Epidemiological indicators of health status, Food poisoning, Population comparisons - age standardization, Prospective and retrospective study, Risk assessment

Mode of teaching

Lectures; Seminar; Exercises

Student obligations

Lectures are not mandatory, but seminars and exercises are.

Monitoring student work (alignment of learning outcomes, teaching methods, and grading)

Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Evaluation points	
					Min.	Max.
Class attendance	0,1	1-5	Class attendance	Lecture diary	0	1
			Discussion activity		0	1
Seminar - independent task	0,3	6	Independent work	Oral and written presentation	0	15
			Discussion activity	Seminar diary	0	5
				Seminar diary	0	5
Exercises	0,2	1-5	Presence	Exercise diary	0	5
				Exercise diary	0	5

			Active participation in exercises			
Written exam	1,3	1-6	Demonstration of knowledge in the written exam	Written exam	0	63
Oral exam - supplement to the written exam	0,1	1-6	Studying for the oral exam	Oral exam	0	20
Ukupno	2				0	100
Oral exam - supplement to the written exam	0	1-6	Studying for the oral exam	Oral exam	0	20
Total points	2				0	100

Calculation of final grade:

The final exam is written and mandatory.

A student who has not collected a single point from lectures, seminars and exercises can take the written exam. In this case, he can collect a maximum of 63 evaluation points, which is enough for a positive evaluation.

Only those students who have collected at least 60 grade points from lectures, seminars and exercises and have collected at least 60% of possible grade points in the last written exam can take the oral exam.

During the final written exam, a student can receive a maximum of 63 grade points.

The minimum criterion for obtaining evaluation points for the written exam is 60% of the total possible points. For each point more than 90% of correctly solved questions, the student receives proportional points (range of 44 - 63 points). Above this limit, the student receives the maximum number of points, i.e. 63 points. In other words, all students who solve more than 90% of the written exam receive the maximum number of points.

For any reason, a student can request and get an insight into the written exam.

At the oral part of the final exam (if the student requests it), the student can obtain a maximum of 20 evaluation points. The oral exam can be approved in cases where the student is not satisfied with the final proposal of the final mark under the condition (which implies that he has collected a total of 60 mark points), that he passed the last written exam with a positive mark (which is a prerequisite for the oral exam), and with the oral exam can collect enough points for a higher grade.

Points can also be negative.

The points obtained in the oral part of the final exam are added to the total grade points obtained.

In the written and oral exam, the student must demonstrate knowledge of the topics covered in lectures, seminars and exercises.

The student's final grade is formed by the sum of the mark points obtained during all assessment segments, i.e. by adding the mark points obtained on the final exam (written part and possible oral part if the student requested it) and mark points obtained during classes (lectures, activity in classes during seminars, exercises and seminar - independent task).

Grading in the ECTS system is done by absolute distribution, i.e. based on the final achievement and is compared with the numerical system as follows:

A – excellent (5): 90.00-100.00 grade points

B – very good (4): 80.00-89.99 grade points

C – good (3): 70.00-79.99 grade points

D – sufficient (2): 60.00-69.99 grade points

E – insufficient (1): <60 grade points

Required reading (available in the library and through other media)

Title	Number of copies in the library	Availability through other media
1. Kolčić I, Vorko-Jović A. Epidemiologija (odabrana poglavlja). Medicinska naklada, Zagreb, 2012.	13	
2. Ropac D, Puntarić D. i sur. Epidemiologija zaraznih bolesti (odabrana poglavlja). Medicinska naklada, Zagreb, 2010.	13	
3. Vorko-Jović A, Strnad M, Rudan I. Epidemiologija kroničnih nezaraznih bolesti (odabrana poglavlja). Medicinska naklada, Zagreb, 2010.	13	
4. Puntarić D, Ropac D. Opća epidemiologija, Medicinska naklada, Zagreb, 2004.	8	

Additional reading

1. Vorko-Jović A. Priručnik za seminare i vježbe iz epidemiologije. Medicinska naklada, Zagreb, 2002.

2. Published recent scientific research in the subject area.

3. Publications of the Croatian Institute for Public Health –

<https://www.dropbox.com/preview/VEpiNet/Studenti%20medicine/hziz%20ljetopisi.zip?role=personal>

4. Publications of the Institute for Public Health of Osijek-Baranja -

<https://www.dropbox.com/preview/VEpiNet/Studenti%20medicine/Ljetopisi%20RH.zip?role=personal>

5. Publicly available materials from the EU, according to keywords, such as on the Eurostat website

http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do;jsessionid=rFBsSI0p9q00kB57SGwWR6LDhp-g2utmIO8_SdRIWF9C9-XFnGVM_!1846957472 ili npr.

<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00112&plugin=1>

6. Cancer Registry of the Republic of Croatia, <http://www.hziz.hr/sluzbe/sluzba-za-epidemiologiju/odjel-za-nadzor-i-istravanje-ne-zaraznih-bolesti/odsjek-za-zlocudne-bolesti-s-registrom-za-rak/>

7. US National Library of Medicine, National Institutes of Health:

<http://www.ncbi.nlm.nih.gov/pubmed/>

Course evaluation procedures

Anonymous, quantitative, standardized student survey providing feedback on the course as well as on the work of course coordinators and their assistants/associates is being conducted by the QA Office of the Faculty of medicine Osijek.

Note /Other