EPIDEMIOLOGY

MEDICINE

INTEGRATED ACADEMIC STUDIES

SIXTH YEAR OF STUDIES

2024/2025.

Subject:

EPIDEMIOLOGY

The course is valued at 3 ECTS. There are 3 classes of active classes per week (2 classes of lectures and 1 class of seminar in a small group).

TEACHERS AND ASSOCIATES:

RB	Name and surname	E-mail address	Title
1.	Vesna Pantovic	epidemiologija@izjzkg.rs	Full professor
2.	Milena Ilic	drmilenailic@yahoo.com	Full professor
3.	Gordana Djordjevic	mogidj@ptt.rs	Assistant professor
4	Ognjen Djordjevic	ognjendjordjevic763@gmail.com@gmail.com	Teaching assistant

COURSE STRUCTURE:

Module	**Name of the module**	**Week**	**Lectures**	**Work in a small group**	**Teacher-supervisor module**
1	Basic terms and definitions. Epidemiology of infectious diseases	5	2	1	Prof. Vesna Pantovic
2	Epidemiological methods. Prevention of health disorders	5	2	1	Prof. Vesna Pantovic
3	Epidemiology of selected health disorders. Ways of applying epidemiology to support public health	5	2	1	Prof. Vesna Pantovic
					Σ 30+15=45

ASSESSMENT:

The student masters the subject by modules. The score is equivalent to the number of points aquired (see tables). Points are earned in two ways:

ACTIVITY DURING THE LESSON: This way a student can gain up to 30 points by answering two exam questions from that week of teaching in a special part of the exercise and in accordance with the demonstrated knowledge he or she can receive 0-2 points.

EXAM (final test): This way a student can gain up to 70 points, according to the attached table.

MODULE		MAXIMUM POINTS		
		activity during the lesson	**EXAM (final test)**	**Σ**
1	Basic terms and definitions. Epidemiology of infectious diseases	10	**70**	
2	Epidemiological methods. Prevention of health disorders	10		
3	Epidemiology of selected health disorders. Ways of applying epidemiology to support public health	10		
	Σ	**30**	**70**	**100**

<u>The final grade is formed as follows:</u>

In order for a student to pass the course, he must gain a minimum of 51 points and pass all the modules and final exam.
To pass the module the student must:
1. Gain more than 50% points on that module
2. Gain more than 50% of the points provided for teaching activity in each module
3. The final exam is taken as a test of 35 questions.

number of points won	rating
0 - 50	5
51 - 60	6
61 - 70	7
71 - 80	8
80 - 81	9
91 - 100	10

FINAL EXAM

FINAL TEST
0-70 POINTS

EVALUATION OF THE FINAL TEST
The test has 35 questions; each correct answer is worth 2 point

LITERATURE:

Gordis L. Epidemiology. 6th edition. Philadelphia: Saunders; 2018.

Online resursi:

➢ World Health Organization. Available at:http://www.who.int
➢ World Health Organization. Regional Office for Europe. Available at: http://www.who
➢ Center for Disease Control and Prevention (CDC). Available at: http://www.cdc.gov
➢ European Union. Available at: http://www.europa.eu.int
➢ Super couse. Epidemiology, the Internet and Global health. Available at: www.pitt.edu
➢ United Nations. Available at: http://www.un.org

All lectures are available on the website of the Faculty of Medical Sciences: www.medf.kg.ac.rs

THE PROGRAM:

FIRST MODULE: BASIC TERMS AND DEFINITIONS. EPIDEMIOLOGY OF INFECTIOUS DISEASES

TEACHING UNIT 1 (FIRST WEEK):

SUBJECT OF STUDY AND TASKS OF EPIDEMIOLOGY. SOURCES OF DATA ON ILLNESS AND DEATH

Lecture: 2 classes	Seminar in small groups: 1 class
Definition and goals of epidemiology, strategy, relation to clinical disciplines.	Health and disease measures - STANDARDIZATION

TEACHING UNIT 2 (SECOND WEEK):

CAUSATION IN EPIDEMIOLOGY. SPECIES AND TYPES OF EPIDEMICS

Lecture: 2 classes	Seminar in small groups: 1 class
Types of interconnection. The concept of sufficient and necessary cause. Epidemiological models of disease. Characteristics of droplet, contact, waterborne, alimentary and aerogenic epidemics	Contact. Water. Food. Air. Vectors

TEACHING UNIT 3 (THIRD WEEK):

EPIDEMIOLOGY MODELS AND DISEASE CONCEPTS. AGENT, HOST AND ENVIRONMENT

Lecture: 2 classes	Seminar in small groups: 1 class
Physical agents, chemical agents, biological agents. Reservoir of infectious agents and source of infection. Naturally focal infections. Disposition. Basic terms. Environmental pollution. Environmental epidemiology	Tanks. Disposition. Agent. Environment.

TEACHING UNIT 4 (FOURTH WEEK):

EPIDEMIC RESEARCH

Lecture: 2 classes	Seminar in small groups: 1 class
Define an epidemic and examine the distribution of those affected. Pay attention to combinations (interactions) of relevant variables. Make a hypothesis. Test the hypothesis. Propose prevention and suppression measures	Epidemic research

TEACHING UNIT 5 (FIFTH WEEK):

INTRAHOSPITAL INFECTIONS

Lecture: 2 classes	Seminar in small groups: 1 class
Definition and epidemiological characteristics of hospital infections. Control of nosocomial infections	Intrahospital infections

SECOND MODULE: EPIDEMIOLOGY METHODS. PREVENTION OF HEALTH DISORDERS

TEACHING UNIT 6 (SIXTH WEEK):

DESCRIPTIVE METHOD

Lecture: 2 classes	Seminar in small groups: 1 class
Descriptive method	Descriptive method

TEACHING UNIT 7 (SEVENTH WEEK):

ANALYTICAL METHOD. EXPERIMENTAL METHOD

Lecture: 2 classes	Seminar in small groups: 1 class
Analytical method. Experimental method	Analytical method. Experimental method

TEACHING UNIT 8 (EIGHT WEEK):

PREVENTION OF HEALTH DISORDERS. PASSIVE IMMUNIZATION

Lecture: 2 classes	Seminar in small groups: 1 class
Prevention, preventive medicine and public health. Levels of prevention. Preventing diseases and injuries then and now. Scientific bases, dilemmas and limitations of prevention. Strategy of preventive work. Immune sera and antisera. Human immunoglobulins	Vaccination - Part 1

TEACHING UNIT 9 (NINTH WEEK):

ACTIVE IMMUNIZATION

Lecture: 2 classes	Seminar in small groups: 1 class
Organization of compulsory immunization against infectious diseases. Immunization preparation phase. Immunization performance phase. Immunization results reporting and evaluation phase. Administration of vaccines and the importance of active immunization. Types of vaccines	Vaccination - Part 2

TEACHING UNIT 10 (TENTH WEEK):

EPIDEMIOLOGY SURVEILLANCE. SCREENING

Lecture: 2 classes	Seminar in small groups: 1 class
Epidemiological surveillance. Screening	Epidemiological surveillance. Screening

THIRD MODULE:
EPIDEMIOLOGY OF SELECTED HEALTH DISORDERS. METHODS OF APPLYING EPIDEMIOLOGY AS SUPPORT TO PUBLIC HEALTH

TEACHING UNIT 11 (ELEVENTH WEEK):

EPIDEMIOLOGY OF NON-COMMUNICABLE DISEASES

Lecture: 2 classes	Seminar in small groups: 1 class
Epidemiology of malignant tumors. Epidemiology of cardiovascular diseases. Epidemiology of diabetes.	Epidemiology of malignant tumors. Epidemiology of cardiovascular diseases. Epidemiology of diabetes.

TEACHING UNIT 12 (TWELFTH WEEK):

ANTIEPIDEMIC MEASURES. NATIONAL PATHOLOGY

Lecture: 2 classes	Seminar in small groups: 1 class
Measures to control infectious diseases: according to the patient and the environment	Prevention of respiratory infections. Prevention of transmissible diseases and anthropozoonosis. Prevention of intestinal infections.

TEACHING UNIT 13 (THIRTEENTH WEEK):

CLINICAL EPIDEMIOLOGY

Lecture: 2 classes	Seminar in small groups: 1 class
Definition and meaning. Areas of clinical epidemiology. Decision analysis	Clinical epidemiology in practice

TEACHING UNIT 14 (FOURTEENTH WEEK):

NEW DIRECTIONS OF EPIDEMIOLOGY DEVELOPMENT

Lecture: 2 classes	Seminar in small groups: 1 class
Pharmacoepidemiology. Genetic epidemiology	Pharmacoepidemiology. Genetic epidemiology

TEACHING UNIT 15 (FIFTEENTH WEEK):

PREVENTIVE MEDICAL PROTECTION IN EMERGENCY SITUATIONS

Lecture: 2 classes	Seminar in small groups: 1 class
Emergency measures. Biological warfare	Antiepidemic measures. Regulations Elimination and eradication

WEEKLY COURSE SCHEDULE

COURSE	FRIDAY
EPIDEMIOLOGY (2+1)	**LECTURES** **11:15-12:45** (H5) **PRACTICE** **16:15-17:00** (H44)

TEACHING SCHEDULE FOR THE SUBJECT OF EPIDEMIOLOGY

module	week	type	the name of the methodological unit	teacher
1	1	**L**	Subject of study and tasks of epidemiology Sources of data on morbidity and mortality	Vesna Pantovic
1	1	**S**	Subject of study and tasks of epidemiology Sources of data on morbidity and mortality	Vesna Pantovic Ognjen Djordjevic
1	2	**L**	Causality in epidemiology Types and types of epidemics	Vesna Pantovic
1	2	**S**	Causality in epidemiology Types and types of epidemics	Vesna Pantovic Ognjen Djordjevic
1	3	**L**	Epidemiological models and disease concepts Agent, host and environment	Vesna Pantovic
1	3	**S**	Epidemiological models and disease concepts Agent, host and environment	Vesna Pantovic Ognjen Djordjevic
1	4	**L**	Epidemic research	Vesna Pantovic
1	4	**S**	Epidemic research	Vesna Pantovic Ognjen Djordjevic
1	5	**L**	Intrahospital infections	Vesna Pantovic
1	5	**S**	Intrahospital infections	Vesna Pantovic Ognjen Djordjevic
1	6	**L**	Descriptive method	Vesna Pantovic
1	6	**S**	Descriptive method	Vesna Pantovic Ognjen Djordjevic
1	7	**L**	Analytical method Experimental method	Vesna Pantovic
1	7	**S**	Analytical method Experimental method	Vesna Pantovic Ognjen Djordjevic

TEACHING SCHEDULE FOR THE SUBJECT OF EPIDEMIOLOGY

module	week	type	the name of the methodological unit	teacher
1	8	**L**	Prevention of health disorders. Passive immunization	Vesna Pantovic
1	8	**S**	Prevention of health disorders. Passive immunization	Vesna Pantovic Ognjen Djordjevic
1	9	**L**	Active immunization	Vesna Pantovic
1	9	**S**	Active immunization	Vesna Pantovic Ognjen Djordjevic
1	10	**L**	Epidemiological surveillance. Screening	Vesna Pantovic
1	10	**S**	Epidemiological surveillance. Screening	Vesna Pantovic Ognjen Djordjevic
1	11	**L**	Epidemiology of non-communicable diseases	Vesna Pantovic
1	11	**S**	Epidemiology of non-communicable diseases	Vesna Pantovic Ognjen Djordjevic
1	12	**L**	Anti-epidemic measures. National pathology	Vesna Pantovic
1	12	**S**	Anti-epidemic measures. National pathology	Vesna Pantovic Ognjen Djordjevic
1	13	**L**	Clinical epidemiology	Vesna Pantovic
1	13	**S**	Clinical epidemiology	Vesna Pantovic Ognjen Djordjevic
1	14	**L**	New directions of epidemiology development	Vesna Pantovic
1	14	**S**	New directions of epidemiology development	Vesna Pantovic Ognjen Djordjevic

TEACHING SCHEDULE FOR THE SUBJECT OF EPIDEMIOLOGY

module	week	type	the name of the methodological unit	teacher
1	15	**L**	Preventive medical care in emergency situations	Vesna Pantovic
1	15	**S**	Preventive medical care in emergency situations	Vesna Pantovic Ognjen Djordjevic