

GENERAL INFORMATION		
Course name	Integrative Medicine: Family Medicine, School Medicine and Occupational Medicine	
Course director	Assoc. Prof. Ljiljana Trtica Majnarić, MD, PhD	
Assistants	Prof. Davor Plavec, MD, PhD Asst. Prof. Vesna Bilić-Kirin, MD, PhD Albina Dumić, MD, PhD Jelena Kovačević, MD, PhD Tea Omanović Kolarić, MD, PhD Matea Matic Ličanin, MD	
Study program	Integrated undergraduate and graduate university study program Medical Studies in German	
Course status	Mandatory	
Year of study, semester	6 th year, 11 th semester	
Credits allocated and form of instruction	ECTS student workload	12
	Number of teaching hours (L+S+E)	185 (65+60+60)
COURSE DESCRIPTION		
Course objectives		
<p>Understanding the content and work methods and the place and role of family medicine (FM), school medicine (SM) and sports and occupational medicine (SOM) in the health system The acquisition of fundamental knowledge and skills within the scope of these disciplines Understanding the role of the basic unit of society (family), social and environmental living conditions regarding health and disease development and the impact of disease on families and local and wider communities Increase awareness and develop sensitivity regarding the relationship between social inequalities and health/disease</p>		
Course requirements		
There are no specific requirements for this course except those defined in the study program curriculum.		
Learning outcomes at the Programme level		
1.1., 1.2., 2.1., 2.2., 2.3., 3.1., 3.2., 3.3., 3.4., 3.5., 4.1., 4.2.		
Expected learning outcomes (5-10 learning outcomes)		
Knowledge		
FM		
<ol style="list-style-type: none"> 1. Define the specificity of the work and position of FM in the health system and explain the comprehensiveness and continuity of care regarding family doctor's care of individuals and community using a bio-psycho-social and holistic approach 2. List fundamental types of healthcare in FM 3. Explain the method of teamwork and cooperation of different health activities at the primary healthcare level and cooperation at other healthcare levels 4. Explain the importance of preventive procedures in FM and describe methods and content of the work regarding preventive procedures in FM 5. Understand the specificities of doctors' work in FM regarding the treatment of patients with acute and chronic diseases and specificities of the management of the first contact with the patient, treatment of disease and disorders in the earliest stages, characteristics of the communication with the patient and specificities of the patient-doctor relationship, methods of coordinating health care, treating patients with concomitant diseases, principles and organization of the implementation of permanent care, home care, principles and legislative framework for the assessment of temporary incapacity for work 		

6. Know the basic principles of diagnostics and pharmacological and non-pharmacological treatment methods for major groups of diseases and clinical conditions

SM

1. Understand the importance and social aspects of care for the health of school children and young people
2. Understand and know how to describe programs of specific and preventive health protection measures for school children and young people

SOM

1. Understand the relationship between the impact of external factors in the workplace and sports activities on health and disease development
2. Be able to explain the impact of individual external working environment factors on health
3. Understand the specificities of the sports physiology
4. Know the principles of general and work capacity evaluation

Skills

FM

1. Apply fundamental communication skills in contact with the patient in the family doctor's office
2. Perform a clinical examination of patients of different age groups
3. Interpret the results of the most common diagnostic procedures: laboratory analysis of blood, radiographs, electrocardiogram, spirometry and peak flow measurement
4. Apply the correct blood pressure measurement technique, interpret the results of the device for continuous blood pressure measurement and pedo-brachial index measurement
5. Correctly collect samples for microbiological analysis: oropharyngeal, nasopharyngeal, skin, wound swab
6. Apply drug prescription rules
7. Understand the management of electronic health records and fundamental medical documentation in the family doctor's office
8. Administer parenteral drugs
9. Apply surface wound and permanent dressing
10. Perform primary wound healing and correctly remove stitches
11. Correctly apply life-support and temporary immobilization procedures
12. Correctly use the device for self-monitoring of blood glucose and insulin treatment
13. Correctly use the inhaler and administer inhaled medicines
14. Correctly perform breathing exercises, spinal exercises and exercises for large joints
15. Apply the rules for physical therapy in FM
16. Perform a digital rectal examination and prostate examination
17. Perform bladder catheterization on the model
18. Perform an otoscopy, anterior rhinoscopy, eye examination and a direct ophthalmoscopy
19. Interpret urine test results using a test strip
20. Apply the rules for collecting samples for microbiological tests
21. Administer and interpret the test for occult bleeding in the stool

SM

1. Correctly take the school child's medical history and heteroanamnesis
2. Correctly perform anthropometric measurements: height and weight and interpretation of measurements using the centile charts
3. Perform eye examination
4. Perform cardio-respiratory and locomotor system examination in school-age children
5. Apply the sexual maturity evaluation rules

6. Apply the rules of health education regarding students and parents

SOM

1. Apply rules on the impact of external factors on the determination of the existence of an occupational disease
2. Apply rules on the use of protective equipment at the workplace
3. Apply rules on the workplace health evaluation and work capacity evaluation

Course content

Course content

- I. Family medicine (FM)

FM as a specific medical discipline

- Specific role of FM in the health system; different forms of work organization of primary healthcare and FM in some EU countries
- Differences in morbidity between primary and secondary health care (HC); Disease classification (ICD-10 and ICPC-2)
- Specificity of the diagnostic and therapeutic procedure in FM, difference from secondary HC; characteristics of the family doctor's work; cooperation between primary and secondary HC
- Cooperation within the FM team; cooperation of the FM team with other PHC activities and the local community
- The specificity of the doctor-patient cooperation in FM (communication in FM); consultation in FM as a specific form of doctor-patient meeting
- Patient relationship to disease and treatment
- Specificities of the decision-making process in FM and sources of information

Organization and legislative aspects of the work in FM

- The legislative framework for setting up professional practice and programs of healthcare measures
- Equipment in doctor's office; external work control, self-assessment of the quality of work, patient safety in FM; medical waste management
- ICT system in FM and PHC; electronic health records; forms, applications and registries; data protection
- Temporary and permanent incapacity for work and other patient rights in FM and PHC

Specific forms of work in FM

- Methods and contents of preventive procedures in FM
- Characteristics of the management of chronic diseases; malnutrition; cachexia; rehabilitation and disability
- Care of patients with multimorbidity
- Health problems in the elderly; geriatric syndromes; sleep disorders
- Early detection of malignant diseases, monitoring and care of patients with malignant diseases; organization of palliative medicine and principles of treatment
- Home visits and treatment; home health care
- Drug prescription in FM; characteristics of drug prescription for children, pregnant women and the elderly; drug interactions and polypragmasia
- Child in the family doctor's office; monitoring growth and development and management of the most common health problems
- Sex-dependent differences in disease occurrence; the most common women's health problems; genitourinary and sexually transmitted diseases
- Family and its importance for disease occurrence; chronic patient in the family; domestic violence
- Social health and disease factors; the role of stress and negative emotions; psychosomatic diseases; addiction diseases; social inequalities and health
- Most common emergency conditions in FM and their management

- Clinical interpretation of laboratory and radiological results
- Protection of the mental health of family doctors: Balint groups and burnout syndrome
- Complementary, alternative and traditional medicine

Management of major groups of diseases and clinical conditions, based on evidence and good practice experience

- Hypertension and cardiovascular diseases
- DM2 and other common endocrine diseases
- Gastrointestinal diseases
- Acute respiratory diseases
- Chronic respiratory diseases
- Anemia
- Musculoskeletal diseases
- Most common skin diseases in FM and simple therapeutic procedures
- Most common neurological diseases in FM
- Patients with mental illnesses
- Acute urinary infections and chronic kidney diseases
- Most common health problems in FM in relation to eyes and ears

II. School medicine (SM)

Preventive and specific measures program

- Health education and health promotion
- Counseling
- Systemic and other preventive examinations
- Physical education
- Measures of hygiene and epidemiological protection
- Protection and promotion of healthy environment and other preventive activities
- Program of measures for individual grades

Growth and development of school-age children and assessment methods

Examination and legislative framework for the enrollment in the first grade of primary school

Vaccination as a public health measure; mandatory vaccination calendar; tuberculin test

Identification and systematization of children with developmental difficulties and the legislative framework for education of these children

Problems of young people and deviations in psychological development and behavior

III. Sports and occupational medicine (SOM)

Historical development, key tasks and role of SOM in the health system

Sports and work physiology

Sports and work psychology

Physical working environment factors and their health impact

Chemical working environment factors and their health impact

Biological working environment factors and their health impact

Form of instruction	<input checked="" type="checkbox"/> lectures	<input type="checkbox"/> individual assignments
	<input checked="" type="checkbox"/> seminars and workshops	<input type="checkbox"/> multimedia and internet
	<input checked="" type="checkbox"/> exercises	<input type="checkbox"/> laboratory
	<input type="checkbox"/> distance learning	<input type="checkbox"/> mentoring activities
	<input type="checkbox"/> field course	<input type="checkbox"/> other

Student obligations

Come to class prepared by studying the recommended literature for each unit and actively participate in all forms of instruction. The student must participate in at least 70% of classes to pass the course.

Monitoring student learning

Attendance	x	Active participation	x	Seminar paper		Experimental work	
Written exam	x	Oral exam		Essay		Research	
Project		Continuous assessment		Paper		Practical work	
Portfolio							

Assessment and evaluation of students during class and on the final exam

Students' performance will be evaluated during class and on the final exam. Students are evaluated numerically and descriptively (insufficient (1), sufficient (2), good (3), very good (4), excellent (5)). During classes, a student can earn a maximum of 100 points. Students can earn a maximum of 20 points during classes through different types of activities. On the final exam, students can earn a maximum of 80 points. The final grade represents the sum of the points earned during classes and on the final exam.

Mandatory reading

1. Nowak d. Arbeitsmedizin und klinische Umweltmedizin
2. von Detmar J. Facharztprüfung Allgemeinmedizin: in Fällen, Fragen und Antworten - Mit Zugang zur Medizinwelt.
3. Gesenhues S, Gesenhues A, Weltermann B. Praxisleitfaden Allgemeinmedizin. Urban & Fischer in Elsevier; 8. Auflage: 2017
4. von Frank HM, Riedl B: Allgemeinmedizin und Praxis Facharztwissen, Facharztprüfung, Anleitunglin, Diagnostik, Therapie und Betreuung

Additional reading

The number of copies of mandatory reading in proportion to the number of students currently taking this course

<i>Title</i>	<i>Number of copies</i>	<i>Number of students</i>
Nowak d. Arbeitsmedizin und klinische Umweltmedizin	20	60
von Detmar J. Facharztprüfung Allgemeinmedizin: in Fällen, Fragen und Antworten - Mit Zugang zur Medizinwelt.	20	60
Gesenhues S, Gesenhues A, Weltermann B. Praxisleitfaden Allgemeinmedizin. Urban & Fischer in Elsevier; 8. Auflage: 2017	20	60
von Frank HM, Riedl B: Allgemeinmedizin und Praxis Facharztwissen, Facharztprüfung, Anleitunglin, Diagnostik, Therapie und Betreuung	20	60

Quality monitoring methods ensuring the acquisition of knowledge upon completion, skills and competences

The quality of course performance is monitored through an anonymous student survey on the quality of the organization and conduction of classes, the course content and the work of professors. The usefulness of the lectures from the students' perspective, the curriculum content, the professor preparedness, the clarity of the presentation, the amount of new content and the quality of the presentation are evaluated. The curriculum and its execution are administratively compared. The participation of students in lectures and exercises, as well as the excuses for missing classes, are controlled and analyzed.