Faculty of Medicine in Rijeka

Curriculum
2022/2023

For course

Internal Medicine

Study program:	**Medical Studies in English (R)** University integrated undergraduate and graduate study
Department:	**Department of Internal Medicine**
Course coordinator:	**prof. dr. sc. Klobučar Sanja, dr. med.**
Year of study:	**4**
ECTS:	**18**
Incentive ECTS:	**0 (0.00%)**
Foreign language:	**Possibility of teaching in a foreign language**

Course information:

The course INTERNAL MEDICINE is a compulsory course in the fourth year of the Integrated Undergraduate and Graduate University Study of Medicine in English, in I. (winter) semester. It consists of 60 hours of lectures, 90 hours of seminars and 210 hours of practicals, a total of 360 hours (18 ECTS credits). It takes place at the Internal Medicine Clinic and Clinic for Cardiovascular Diseases of Clinical Hospital Center Rijeka.

OBJECTIVES OF THE COURSE: The goal of this course is to acquire theoretical knowledge and practical skills in the field of internal medicine at the level of general medical practice including epidemiology, classification, etiology and pathogenesis, clinical presentation, diagnostics, treatment and prognosis of internal diseases. By the end of this course, students should be able to recognise the signs and symptoms indicating the presence of internal diseases and to apply practical patient management skills including competencies in clinical examination, laboratory and functional tests interpretation, diagnostic and therapeutic decision making. Following successful course completion students will be able to understand the role of invasive diagnostic and interventional procedures in internal medicine. The problem-oriented approach to patient management and the rational use of diagnostic and therapeutic procedures are going to be encouraged.

LEARNING OUTCOMES:
The catalog of knowledge and skills defines the areas and topics in internal medicine that the student should master at the level required for a future general practitioner in primary health care. Certain knowledge and skills should be acquired at the level of general competence, ie. recognizing specific clinical features and raising suspicion of particular disease. In case of practical skills, the catalog defines the procedures that need to be understood on a theoretical level. During the course, student should be present when such procedures are performed, but he/she does not have to be able to perform them alone. This catalog also defines the areas and topics in internal medicine that the student should master at the level of specific competence, meaning that certain clinical syndromes, conditions and diseases are not only to be recognized but also adequately managed relying on principles of evidence-based medicine in making diagnostic and therapeutic decisions. According to the catalog of clinical skills, student should develop particular skills and demonstrate the ability to perform certain clinical procedures alone.

COMPETENCIES that student should acquire:
I. Cognitive domain – knowledge:
1. Name the main areas of internal medicine and within them the basic groups of internal diseases
2. Define the most common internal diseases as unique clinical entities
3. Describe the main symptoms and signs of internal diseases integrating them into specific clinical conditions and syndromes
4. Select the appropriate diagnostic procedures for certain conditions in the field of internal medicine
5. Critically evaluate the results of diagnostic tests in internal medicine
6. Formulate a differential diagnosis based on the clinical features and diagnostic test results
7. Choose principles of evidence-based medicine in making diagnostic and management decisions8. Demonstrate the ability to construct a treatment plan for the most common internal diseases
9. Demonstrate the ability to predict the course and the possible outcomes of a disease
10. Analyze and evaluate the course of treatment, its efficacy and outcomes

II. Psychomotor domain – skills:
1. Recognize the main symptoms of internal diseases
2. Conduct a focused medical history and targeted physical examination appropriate to the patient´s chief complaint(s) and the history of the present internal disease(s)
3. Recognize the relevant signs of internal diseases
4. Formulate and discuss a differential diagnosis
5. Use the differential diagnosis to help guide diagnostic test ordering and its sequence
6. Perform certain diagnostic and therapeutic procedures under the supervision
7. Demonstrate the ability to perform certain clinical procedures alone according to the catalog clinical skills
8. Formulate an initial therapeutic plan
9. Keep medical records
10. Participate in a team-work, interdisciplinary and multidisciplinary clinical work

GENERAL COURSE CONTENT:
Introduction to clinical medicine. Ethical principles and clinical medicine. Quality of life, lifestyle and health. Biological aspects of internal medicine. Main symptoms and signs of internal diseases. Diagnostic andtherapeutic procedures in internal medicine. Intensive medicine. Cardiovascular diseases. Disorders of the respiratory system. Disorders of the kidney and

urinary tract. Gastroenterology. Endocrinology, diabetes and metabolic diseases. Hematology. Principles of oncology, malignant diseases in internal medicine. Clinical immunology and rheumatology.

COURSE STRUCTURE:
Classes are organised in the form of 60 hours of lectures, 90 hours of seminars and 210 hours of practicals, a total of 360 hours. Lectures and seminars take place in the Lecture hall Rijeka or Sušak at Clinical Hospital Center Rijeka and in the Lecture hall at Faculty of Health Studies or On-line via MS Teams Platform according to the schedule. Practicals take place place at Clinical Hospital Center Rijeka (Internal Medicine Clinic and Clinic for Cardiovascular Diseases). Practicals are coordinated with the lectures and seminars. Two midterm written exams (colloquia) will be held during the semester following the theoretical part of the course. The first one covers the topics in gastroenterology, hematology, endocrinology, clinical immunology rheumatology and the second one covers the topics in cardiology, pulmonology and nephrology.

List of assigned reading:

Jameson JL et al. Harrison’s Principles of Internal Medicine, 20th Edition. McGraw-Hill Education: New York, USA, 2018. e-edition available at https://accessmedicine.mhmedical.com/book.aspx?bookid=2129

Lectures and seminars as original PPT presentations in PDF format will be available for students to download from the Merlin platform, once they are held.

List of optional reading:

Stuart H. Ralston, Ian Penman, Mark Strachan & Richard Hobson. Davidson's Principles and Practice of Medicine, 23rd Edition. Elsevier, 2018.
Adam Feather, David Randall & Mona Waterhouse. Kumar and Clark's Clinical Medicine, 10th Edition. Elsevier, 2020

Curriculum:

Student obligations:

Students are required to attend classes regularly and to actively participate in all forms of teaching. They are required to participate in all forms of knowledge and practical skills assessment. Ethical student behavior is encouraged in accordance with Codes of Ethical Student Conduct

Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, grading criteria):

Student assessment is carried out in accordance with the current University of Rijeka Study Regulations and the Student Regulations at the Faculty of Medicine Rijeka (adopted by the Faculty Council of the Faculty of Medicine Rijeka).

Students' performance will be evaluated during the class and at the final exam. Out of a total of 100 credits, a student can earn a maximum of 60 credits during the class by taking two midterm written exams (colloquia), and a maximum of 40 credits at the final practical/oral exam.

Assessment during the class:
Two midterm written exams (colloquia) will be held during the semester following the theoretical part of the course. The first midterm written exam covers the topics in gastroenterology, hematology, endocrinology, clinical immunology and rheumatology and the second one covers the topics in cardiology, pulmonology and nephrology. Each of the midterm written exams consists of 60 multiple choice questions. The student has passed the written exam if he/she answers at least 50% of the questions correctly.

The sum of the correct answers in two written colloquia (each containing 60 questions) is divided by the number 2, if result is not a whole number it should be rounded up to the next higher whole number (eg. 120:2=60 or 113:2=56,5 ie. 57 credits). The possible satisfactory range of credits the student can earn during the class by taking two midterm written exams is 30-60 credits. It is considered that the student has passed both colloquia and fulfilled a prerequisite for taking the final exam with a minimum of 50% correct answers ie. if he/she has gained at least 30 credits in total. For students who failed or could not attend the written exam for justifiable reasons (medical certificate should be provided), additional written exam will be organised after the course end.
The written exams will be conducted online using e-learning platform Merlin with the mandatory Safe Exam Browser installed on personal computer, without which it is not possible to take the exam. The writing of the exam will be supervised via the MS Teams platform, and during the exam students must have the cameras and microphones on their mobile devices turned on. All detailed instructions on holding the exam will be posted on Merlin in due course.

Final oral/practical exam:

40% of the final grade the student can earn at the final oral/practical exam, which consists of theoretical knowledge and practical competency assessment covering the entire teaching material presented during the course including the clinical examination of a patient. Students must be able to take patient history in Croatian. Examiner is not obligated to provide English speaking patient for the practical part of the exam.

Final exam is scored up to a maximum of 40 credits as follows:
Excellent knowledge (5) - 40 credits
Very good knowledge (4) - 34 credits
Good knowledge (3) - 27 credits
Satisfactory knowledge (2) - 20 credits

The final grade is the sum of credits obtained during the class and at the final exam, and is expressed by the corresponding percentage, the letter of the alphabet, and a numerical grade (eg. 60+40=100 or 100%, A, excellent 5).

The ECTS grading system is defined by the following criteria:

A (5) – 90 -100% credits
B (4) – 75 - 89,9% credits
C (3) – 60 - 74,9% credits
D (2) – 50 - 59,9% credits
F (1) – 0 - 49,9% credits

Other notes (related to the course) important for students:

All additional and more detailed information can be obtained continuously during classes from the course coordinator and all teachers and associates, by personal contact or via e-mail (the e-mail addresses of all members of the Department of Internal Medicine can be found on the Faculty's website).

Any irregularities in the teaching process must be reported immediately to the course coordinator, either through the official student email or through personal contact by the students or their authorized representatives. In such cases, the course coordinator guarantees the protection (confidentiality) of the student's identity.

COURSE HOURS 2022/2023

Internal Medicine

List of lectures, seminars and practicals:

EXAM DATES (final exam):
