



SYLLABUS

1. Data regarding the program

1.1.	“CAROL DAVILA” UNIVERSITY OF MEDICINE AND PHARMACY
1.2.	MEDICINE FACULTY / DEPARTAMENT 5
1.3.	INTERNAL MEDICINE DISCIPLINE, Clinical Emergency Hospital of Bucharest (CEHB)
1.4.	FIELD OF STUDIES: HEALTH – REGULATED SECTOR IN THE EUROPEAN UNION
1.5.	CYCLE OF STUDY: GRADUATE
1.6.	PROGRAM OF STUDY- MEDICINE

2. Data regarding the discipline

2.1.	Name of discipline: Facultative course – Paraclinical investigations– how do we interpret? – Language of teaching - English					
2.2.	Discipline code:					
2.3.	Discipline type:					
2.4.	Discipline regime: Facultative					
2.5.	Course leaders: Prof. Dr. Diaconu Camelia Cristina – 55 years, 29 years of teaching activity					
2.6.	Seminary coordinator: Lecturer Dr. Hostiuc Mihaela – 44 years, 14 years of teaching activity					
2.7. Year of study Facultative	VI	2.8. Semester	-	2.9. Type of evaluation	Written examination (multiple choice exam)	

3. Total estimated time (hours/semester of teaching activity) – teaching in modules

Facultative course - Paraclinic investigations– how we look at them?

3.1. No hours per week	2	Of which : 3.2. Lecture	2	3.3. Seminar/laboratory	0
3.4. Total no hours of the educational plan	14	Of which : 3.5. Lecture	14	3.6. Seminar/laboratory	0
Distribution of time	7 weeks		2 hours/day		
Study from textbook, electronic support format, bibliography, notes					14
Extra-reading in the library, from electronic platforms specialized in the field					7
Preparation of seminars/ laboratories, homework, essays, portfolios and reports					2
Tutoring					
Examinations					2
Other activities					
3.7. Total hours of individual study					25

3.9. Total hours per semester		39
3.10. Number of credits		

4. Preconditions (where applicable)

4.1. curriculum	Basic knowledge of anatomy, physiology and pathophysiology of cardiovascular, digestive and respiratory systems, pharmacology
4.2. competency	Basic knowledge about ECG, spirometry and imaging (abdominal and cardiac ultrasound)

5. Conditions (where applicable)

5.1. for holding lecture	Multimedia projector, computer, program for viewing images
5.2. for holding seminar	Internal Medicine Department, Clinical Emergency Hospital of Bucharest

6. Accumulated specific competency

Professional competencies (knowledge and abilities)	At the end of the course, the student must know: • The main biochemical paraclinical syndromes • Normal parameters and the main ECG abnormalities met in clinical practice • The main abnormalities of acid/base balance and hydroelectrolytic balance met in clinical practice • The main elements of digestive imaging and cardiovascular semiology • Indications, methods and the diagnostic success of digestive endoscopic investigations, including endoscopic retrograde cholangiopancreatography, and vascular hemodynamics At the end of the course, the student should be able to: • To interpret paraclinical investigations, like ECG, spirometry, acid/base worksheets, laboratory tests • Will be able to indicate and interpret the results of digestive endoscopic and vascular hemodynamic evaluations • To identify the main abnormalities of abdominal echography
Transversal competency (role, professional and personal development)	• Identifying roles and responsibilities in a pluri-disciplinary team and applying efficient teamwork techniques inside the team and in relation with the patient and family of the patient • Empathy for the patient • Professional ethics • Efficient use of informational and communication resources and professionally assisted training (Internet portal, specialized software, databases, on-line courses etc.) both in Romanian and an internationally spoken language.

7. Discipline objectives (apparent from the accumulated competencies)

7.1. General objective	At the end of the module, the student must be able : • To identify the main illnesses with specific changes of biochemical tests, functional explorations and simple imaging investigations • To learn the indications and applications of simple paraclinical tests • To formulate diagnosis hypotheses, to interpret correctly the semiology, the abnormalities of basic biological and imaging tests, in order to elaborate a final diagnosis, a differential diagnosis and some therapeutic principles
7.2. Specific objectives	At the end of the module, the student should be able: • to correctly select the paraclinical tests according to their specific indications • to interpret basic paraclinical investigations in cardiovascular and digestive pathologies

Corroboration of discipline content with the expectations of the epistemic society, professional associations and representative employers from the field of the program

The teaching process of the student in the VIth year of study in the “Paraclinical investigations – how do we interpret?” Discipline aims to teach the basic principles of the most used paraclinical tests in medical practice. At the end of this lecture, the student will be able to correlate semiology with paraclinical exams to elaborate the correct diagnosis and recommend an adequate treatment.

Emphasis is placed on specific essential diagnostic elements of imaging and non-imaging paraclinical tests, along with compliance with medical ethics, notions that are emphasized throughout the course. Consequently, the professional training will allow the young doctor to become competitive and efficient on the labor market. Effective communication with appropriate but ethically correct medical language is an additional advantage for the complete training of the young doctor.

The appropriate formation of the ability to interpret changes in paraclinical tests provides the prerequisites for admission to residency and the development of a successful medical activity.

8. Contents

8.1. Facultative course	Teaching method	Observations No hours 14
1. Routine laboratory tests – how do they help us in daily practice? 2. Ultrasonographic imaging of the abdomen – basics and clinical cases 3. Electrocardiogram – from simple.... to the patient 4. Respiratory functional explorations (Spirometry) and acid/base balance 5. Diagnostic digestive endoscopy 6. Endoscopic retrograde cholangiopancreatography	The lectures are held in the amphitheater and in properly technically equipped rooms (see space sheet) - screen, blackboards, laptop, projector. All lectures have an electronics support and are updated with current knowledge, textbooks, journals, new online available information and textbooks edited by the academics who are part of the discipline team	Electronic support refers to Power point presentations with theoretic information and exemplifications in images and movies of different signs and imaging exams (i.e. X-

7. Clinical cases presented by and with students "Which is your diagnosis?"		rays, CT scans, eco-cardiography, etc.) or non-imaging exams (ECG, spirometry, cardiac catheterization, etc.)
8.2. Facultative discipline - seminar	Teaching method	Observations No hours 0 LP

Bibliography

1. **Harrison's Principles of Internal Medicine**, 19th Edition, 2015, Editura McGraw-Hill. Editors: Kasper D, Fauci A, Hauser S, Longo D, Jameson L, Loscalzo J. ISBN: 9780071802154
2. Adam Feather, David Randall, Mona Waterhouse: **Kumar and Clark's Clinical Medicine** Tenth Edition
3. **Explorări funcționale în medicina internă**, Coordonator: Camelia Diaconu, Editura ALL, București, 2016. ISBN 978-606-587-417-6
4. **Explorări funcționale în medicina internă**, Coordonator: Camelia Diaconu, Editura ALL, București, 2016. ISBN 978-606-587-417-6
5. **Pocket Guide to Spirometry**, 2nd edition David P. Johns & Rob Pierce McGraw-Hill Australia, 2007
6. **Imaging for Students** Fourth Edition, 4th edition, David A. Lisle. CRC Press 2012, ISBN 9781444121827
7. <http://luultrasound.org/home/ebook/original-abdominal/>

9. Evaluation

Type of activities	9.1. Evaluation criteria	9.2. Evaluation method	9.3. Share in final grade
9.4. Lecture	Knowledge of theoretical data of the course, clinical reasoning Fulfilling the conditions of attendance at lectures as is indicated in the regulations of the student professional activity	Single choice test (30 questions) – including clinical cases	100%

Minimal performance standard

Passing grade is **Grade 5**.

Fill in date:

15.09.2025

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Lecture coordinator signature

Seminary coordinator signature

Date of approval in the
Department Council:

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