

DISCIPLINE SHEET
ACADEMIC YEAR
2022 - 2023

1. DATA ABOUT THE STUDY PROGRAM

1.1 Institution of higher education	UNIVERSITY OF MEDICINE AND PHARMACY CRAIOVA
1.2 Faculty	MEDICINE
1.3 Department	2
1.4 Study domain	HEALTH
1.5 Study cycle	LICENSE
1.6 Study program/Qualification	MEDICINE

2. DATA ABOUT THE DISCIPLINE

2.1 DISCIPLINE NAME	FUNCTIONAL EXPLORATIONS		
2.2. Discipline code	MED3111.2		
2.3 The holder of course activities	Bălșeanu Tudor Adrian		
2.4 The holder of seminar activities	-		
2.5. Academic degree	Professor		
2.6. Employment (base norm/associate)	Base norm		
2.7. Year of study	III	2.8. Semester	I
2.9. Course type (content)			CRD
2.10. Regime of discipline (compulsoriness)			

3. TOTAL ESTIMATED TIME (teaching hours per semester)

3.1 Number of hours per week	1	3.2 from which: course	1	3.3 seminary/laboratory	-
3.4 Total hours in curriculum	14	3.5 from which: course	14	3.6 seminary/laboratory	-
Time found distribution (hours):					
Study by manual, course support, bibliography and notes					12
Additional documentation in the library, specialized electronic platforms and on the field					12
Training seminars/labs, homework, reports, portfolio and essays					-
Tutoring					4
Examinations					3
Other activities: counselling, student circles					5
3.7 Total hours of individual study	36				
3.9 Total hours per semester	50				
3.10 Number of credits	2				

4. PRECONDITIONS (wherever needed)

4.1 curriculum	Students must have a good knowledge of anatomy, biochemistry, biophysics, cell biology
4.2 competency	-

5. CONDITIONS (wherever needed)

5.1. of course deployment	Lecture Hall with projector/online
5.2. of seminary/laboratory	

6. SPECIFIC SKILLS

PROFESSIONAL COMPETENCES	<p>C1 – Identifying the state of ill-health and accurately diagnosing the condition(s).</p> <p>C5 – Initiating and performing scientific research and-or training activity in the respective domain of competence</p>
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TRANSVERSAL COMPETENCES	<p>CT1. Autonomy and accountability</p> <ul style="list-style-type: none"> • acquisition of moral guidelines, training of professional and civic attitudes that enable students to be fair, honest, non-confrontational, cooperative and understanding, available to help people interested in the developer community; • to know, respect and contribute to the development of moral values and professional ethics; • to learn to recognize when a problem arises and provide responsible solutions to solve them. <p>CT2. Social interaction</p> <ul style="list-style-type: none"> • recognize and have respect for diversity and multiculturalism; • have or learn to develop teamwork skills; • communicate with the team; • get involved in volunteering, knowing the essential problems of the community. <p>CT3. Personal and professional development</p> <ul style="list-style-type: none"> • to be open to lifelong learning, • to appreciate the need for individual study as the basis of personal autonomy and professional development; • to exploit to the optimum their potential and creative collective activities; • to know how to use information and communication technology.
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7. DISCIPLINE OBJECTIVES (based on the grid of specific skills acquired)

7.1 The general objective of the discipline	The main goal of FUNCTIONAL EXPLORATION, which is an optional discipline, is to offer to the students a thorough knowledge of the most used functional explorations in medicine, explorations that will allow them a fast and accurate diagnosis and interpretation.
7.2 The specific objectives of the discipline	<p>Functional exploration, as a discipline, is trying to form cognitive abilities, attitudes and skills that will allow to the students the correlation between the paraclinical dates with the clinic ones, in order to diagnose fast and accurate the most common pathologies with vital risk.</p> <p><i>After taking the course, the students will be able to acquire:</i></p> <p>COGNITIVE ABILITIES which will allow</p> <ul style="list-style-type: none"> • To realize the integration of the exploratory aspects in the clinical context of some different pathologies; • To accumulate and to use the notions that will permit to fulfill the dates necessary for a good diagnosis of: illness, evolution and efficacy of the treatment; • To give a presumptive diagnosis and to verify it in laboratory, for validate or unvalidated it, using the evidence obtained after the investigation; • To analyze and to describe the mechanisms of regulation and control of the heart, vessels and the respiratory system; • To recognize and to interpret: a normal and a pathological electrocardiogram; a normal and a pathological spirogram; the trace and the EEG's rhythms; the normal EMG's trace; the conduction speed obtained through stimulo-detection. • To integrate the theoretical and practical knowledges obtained at the discipline of Functional exploration with other knowledges obtained in other disciplines and to use them in the preparation for the clinical instruction; • To communicate clear, rigorous, the knowledges or the results obtained. <p>ATTITUDES</p> <ul style="list-style-type: none"> • to be open, to acquiring moral guidelines, training of professional and civic attitudes that enable students to be fair, honest, non-confrontational, cooperative and understanding in the face of suffering, available to help people interested in the developer community; • to know, respect and contribute to the development of moral values and professional ethics; • learn to recognize when a problem arises and provide responsible solutions to solve them. • recognize and have respect for diversity and multiculturalism; • have or learn to develop teamwork skills; • to communicate orally and in writing the requirements, work method, the results obtained, to consult the results with the team; • to be involved in volunteering, to know the main problems of the community

	<ul style="list-style-type: none"> • to be open to lifelong learning • to understand the need for individual study as the basis of personal autonomy and professional development; • exploit their potential to the optimum and creative collective activities; • know how to use information and communication technology. • To have initiative, to involve itself in educational and scientific activities of the discipline.
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8. CONTENTS

8.1 Course (content units)		Hours
1.	Cardiac electric phenomenon: electrocardiogram. ECG's leads.	1
2.	Normal ECG. Waves, segments, intervals. Analysis of ECG normal trace. Sinus rhythm-criteria. Establishment of the electrical axis of QRS.	1
3.	Analysis and interpretation of pathological electrocardiogram. Diagnostic criteria for arrhythmias	1
4.	Analysis and interpretation of pathological electrocardiogram. Diagnostic criteria for conduction disturbances.	1
5.	Analysis and interpretation of pathological electrocardiogram. Diagnostic criteria for repolarization disorders.	1
6.	Analysis and interpretation of pathological electrocardiogram. Diagnostic criteria for atrial and ventricular hypertrophy.	1
7.	Analysis and interpretation of pathological electrocardiogram. Diagnostic criteria for the disorder induced by electrolyte disturbance and various drugs.	1
8.	Quick Reading of an 12-lead electrocardiogram. ECG diagnosis.	1
9.	Echocardiography.	1
10.	Respiratory functional explorations – normal spirogram.	1
11.	Analysis and interpretation of a pathological spirogram.	1
12.	Motor and sensory conduction velocity.	1
13.	Electromyography.	1
14.	Electroencephalography (EEG): normal and pathological rhythms, indications, limits..	1

BIBLIOGRAFIE

1. The course taught during the semester
2. <http://road2medical.blogspot.ro/2011/06/ecg-interpretations.html>
3. <http://www.practicalclinicalskills.com/ecg-interpretation-tutor.aspx>
4. Fiziologia aparatului cardiovascular – aplicații practice, 2017. Autori: Veronica Sfredel, Daniela Badea, Ionela Iancu, Adrian Tudor Bălșeanu, Smaranda Ioana Mitran, Bogdan Catalin, ISBN 978-606-11-49-84-1 Editura Sitech, Craiova

9. CORROBORATING THE DISCIPLINE CONTENT WITH THE EXPECTATIONS OF EPISTEMIC COMMUNITY REPRESENTATIVES, PROFESSIONAL ASSOCIATIONS AND EMPLOYEE REPRESENTATIVES RELATING TO THIS PROGRAM

- Functional exploration is an optional discipline, very important for a student to become a doctor.
- Knowledge, practical skills and attitudes learned in this discipline provides the basis for the study of pathological processes which will be detailed in other disciplines and forms the basis for understanding and learning of any medical act preventive, diagnostic, curative and rehabilitation.

10. METHODOLOGICAL LANDMARKS

Types of activity	<p>Teaching / learning techniques, materials, resources: presentation, interactive course, group work, learning through problems / projects, audio-video recordings, etc.</p> <p>In special situations (alert states, emergency states, other types of situations that limit the physical presence of people) the activity can be carried out online using computer platforms approved by the faculty/university. The online education process will be adapted accordingly to ensure the fulfillment of all the objectives set out in the subject sheet.</p>
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Course	The following combined methods are used: lecture, debate, problematization. For the online version: lecture, debate, problematization based on materials provided in advance.
Practical work	-
Individual study	Before each lecture and each practical work

11. RECOVERY PROGRAM					
	Nr. ore	Locul desfășurării	Perioada	Responsabil	Programarea temelor
Schedule consultations / Students' Scientific Program	1hour/week	Functional Explorations Laboratory/online training	Weekly	The teacher responsible for the group	Subject discussed in that week
Program for students poorly trained	1hour/week	Functional Explorations Laboratory/online training	Weekly	The teacher responsible for the group	According to individual needs
12. ASSESMENT					
Activity	Types of assesment	Methods of evaluation		Percentage from final grade	
Lecture	Formative assesment during the semester Summative assesment during the exam	Written verification + ECG interpretation/ multichoice using online platform		80%	
Periodic assesment				10%	
Assesment of individual activities				10%	
Minimum performance standard				at least grade 5 for each component of the evaluation	
13. GUIDANCE AND COUNSELLING PROGRAMS					
Professional guidance and counselling programs (2 hours/monthly)					
Scheduling the hours		Location	In charge		
Every last Friday of the month		Functional explorations laboratory/online	Lecture holders		

Endorsement date in the department: 27.09.2022

Department Director,
Prof. Eugen OSIAC

Coordinator of study program,
Prof. Marius Eugen CIUREA

Discipline holder,
Prof. Veronica SFREDEL