

**DISCIPLINE SHEET**  
**ACADEMIC YEAR**  
**2022 – 2023**

**1. DATA ABOUT THE STUDY PROGRAM**

1.1 Institution of higher education	UNIVERSITY OF MEDICINE AND PHARMACY OF CRAIOVA
1.2 Faculty	<b>MEDICINE</b>
1.3 Department	<b>4</b>
1.4 Study Domain	HEALTH
1.5 Study cycle	LICENCE
1.6 Study program/ Qualification	MEDICINE/MD

**2. DATA ABOUT THE DISCIPLINE**

2.1 DISCIPLINE NAME		<b>CARDIOLOGY THERAPEUTIC AND DIAGNOSTIC TECHNIQUES</b>		
2.2. Discipline code		MED4215.1		
2.3 The holder of course activities		Florescu Cristina, Mustafa Edme Roxana		
2.4 The holder of seminar activities		-		
2.5. Academic degree		Associate professor, Lecturer		
2.6. Employment (base norm/associate)		base norm		
2.7. Year of study	<b>IV</b>	2.8. Semester	<b>II</b>	2.9. Course type (content) 2.10. Regime of discipline (compulsoriness)
				<b>ESD</b>

**3. THE ESTIMATED TOTAL TIME (teaching hours per semester)**

3.1 Number of hours per week	<b>1</b>	3.2 From which course	<b>1</b>	3.3 seminary/laboratory	-
3.4 Total hours in curriculum	<b>14</b>	3.5 From which course	<b>14</b>	3.6 seminary/laboratory	-
Time found distribution (hours)					
Study from manual, course support, bibliography, and notes					<b>20</b>
Additional documentation in the library, specialized electronic platforms and on the field					<b>10</b>
Training seminars / labs, homework, reports, portfolios, and essays					<b>0</b>
Tutoring					<b>2</b>
Examinations					<b>2</b>
Other activities, counselling, student scientific programs					<b>2</b>
3.7 Total hours of individual study	<b>36</b>				
3.9 Total hours per semester	<b>50</b>				
3.10 Number of credits	<b>2</b>				

**4. PREREQUISITES** (where appropriate)

4.1 curriculum	Students must have a solid knowledge of anatomy, physiology, medical semiology.
4.2 competency	-

**5. CONDITIONS** (where appropriate)

5.1. of course deployment	Classroom / online environment
5.2. of seminary/ lab deployment	-

**6. SPECIFIC COMPETENCES ACQUIRED**

<b>PROFESSIONAL COMPETENCES</b>	<p>C1 - Identifying the state of ill-health and accurately diagnosing the condition(s).</p> <p>C2 - Preparing and applying an adequate treatment plan for the identified condition(s).</p> <p>C3 - Assessing correctly the risk of disease or the context of the occurrence of an individual/collective disease, followed by the selection and implementation of adequate prophylactic measures.</p> <p>C4 - Approaching the health/ill-health issues from the point of view of the characteristics of the community, in direct relation with the social, economic and/or cultural conditions of the respective community.</p>
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<b>TRANSVERSAL COMPETENCES</b>	<p>CT1 - Identifying the objectives to be fulfilled, the available resources, the terms of completion, the work stages, the timeframe, the related deadlines and the inherent risks. Performing projects under coordination, in order to solve specific problems for the field, with the correct evaluation of the workload, the available resources, the time necessary for their completion and the risks, while applying the professional deontological and ethical norms in the field, as well as the labor health and security norms.</p> <p>CT2 - Identifying the roles and responsibilities in a pluridisciplinary team and applying efficient work and relation techniques within the team and in the relation with the patients. Developing an assignment/project by performing responsibly the tasks typical for the role in a pluridisciplinary team.</p> <p>CT3 - Using the information and communication resources efficiently, as well as those for assisted professional development (web portals, specialized software applications, data bases, on-line courses, etc).</p>
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### 7. DISCIPLINE OBJECTIVES (based on the grid of specific competences acquired)

7.1 The general objective of the discipline	Acquiring basic knowledge about the diagnosis and treatment of major cardiovascular emergencies.
7.2 The specific objectives of the discipline	<p>Upon completion of the course the student will be able to master:</p> <p><b>COGNITIVE SKILLS</b>, which will allow them to:</p> <ul style="list-style-type: none"> <li>• to understand the principles underlying the recording of the electrical activity of the heart;</li> <li>• to recognize the normal electrocardiogram and its main pathological changes;</li> <li>• to interpret the radiological changes of the main cardiovascular diseases</li> <li>• to know the indications and usefulness of nuclear magnetic resonance exploration in cardiology;</li> <li>• to know the principles of invasive cardiovascular investigations and the basics of the technique of interventional cardiology;</li> <li>• to know the main invasive therapeutic maneuvers in cardiovascular diseases.</li> </ul> <p><b>ATTITUDES</b></p> <ul style="list-style-type: none"> <li>• to be open to the acquisition of moral landmarks, the formation of professional and civic attitudes, which allow students to be fair, honest, non-conflicting, cooperative, understanding in the face of suffering, available to help people interested in community development;</li> <li>• to know, respect and contribute to the development of moral values and professional ethics;</li> <li>• be open to lifelong learning,</li> <li>• to be aware of the need for individual study as a basis for personal autonomy and professional development;</li> </ul>

### 8. CONTENTS

<b>8.1 Course (content units)</b>	Nr. Hours
Electrocardiography and associated techniques	2
Standard echocardiography and special techniques	2
Radiological and magnetic resonance examination	2
Coronary angiography and angioplasty	2
Peripheral angiography and angioplasty	2
Emergency therapeutic techniques	2
The implant of intracardiac devices. Ventricular assist devices	2
<b>8.2 Practical work (topics / themes)</b>	
-	-
<b>BIBLIOGRAPHY</b>	
1. The course.	
2. C. Ginghină. Mic tratat de cardiologie, Editura Academiei Române, 2018.	
3. Saul G. Myerson. Emergencies in Cardiology, Medical Publishing House, 2014.	

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

<ul style="list-style-type: none"> <li>• The discipline of Diagnostic and Therapeutic Techniques in Cardiology is an optional discipline that offers students the opportunity to deepen the main techniques and maneuvers useful in cardiology. Given the prevalence of cardiovascular disease and the inter-relationships of the cardiovascular system with other systems, the knowledge learned in this discipline will be useful for other disciplines such as emergency medicine.</li> <li>• The content of the discipline is in accordance with the international medical information, in order to ensure a good preparation of the student, who will have the useful basic knowledge in the medical practice of any specialty.</li> </ul>
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## 10. METHODOLOGICAL LANDMARKS

Types of activity	Teaching Techniques / learning materials and resources:
Course	Lectures, interactive course, audio-video recordings, etc. In case of 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 fulfilment of all the objectives set out in the subject sheet.
Practical work	-
Individual study	For the online version: lecture, debate, problematization based on materials provided in advance.

## 11. RECOVERY PROGRAM

Absences recoveries	No. absences that can recover	Location of deployment	Period	In charge	Scheduling of topics
	2	Filantropia hospital-cardiology/online	Last week of semester	Assoc. Prof. Cristina Florescu	According to the internal schedule
Schedule consultations / Students' Scientific Program	1 hour/week	Filantropia hospital-cardiology/online	Weekly	Assoc. Prof. Cristina Florescu	The theme of the week. Student workshop: Advanced electrocardiography.
Program for students poorly trained	1 hour/week	Filantropia hospital-cardiology/online	Weekly	Assoc. Prof. Cristina Florescu	According to the situation of each student Theme from that specific week

## 12. ASSESSMENT

Activity	Types of assessment	Method of evaluation	Percentage from final grade
Lecture	Summative assessment during the exam	Multiple Choice Questions Answering System (MCQ)/MCQ with the help of the IT platform in the online version.	100%
Practical work	-	-	-
Periodic assesment	-	-	-
Assesment of individual activity	-	-	-
Minimum performance standard	-	-	at least 50% for each component of the evaluation

## 13. GUIDANCE AND COUNSELLING PROGRAMS

Professional guidance and counselling programs (2 hours/month)		
Scheduling the hours	Location	In charge
First Friday of every month, at 11:00	Filantropia hospital-cardiology/online	Course holders

Endorsement date in the department: 28.09.2022

Department Director,  
Prof. Paul MITRUȚ

Coordinator of study program,  
Prof. Marius Eugen CIUREA

Discipline holder,  
Lecturer Edme Roxana MUSTAFA