

**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>INTERNAL MEDICINE CARDIOLOGY</b>		
2.2. Discipline code	MED4101.B		
2.3 The holder of course activities	Istrătoaie Octavian, Militaru Constantin, Donoiu Ionuț		
2.4 The holder of seminar activities	Istrătoaie Octavian, Militaru Constantin, Donoiu Ionuț, Mustafa Edmee Roxana, Munteanu-Mirea Oana, Militaru Sebastian, Roçoareanu Alexandru, Țieranu Eugen, Berceanu Mihaela Corina		
2.5. Academic degree	Professor, Associate Professor		
2.6. Employment (base norm/associate)	base norm		
2.7. Year of study	<b>IV</b>	2.8. Semester	<b>I</b>
		2.9. Course type (content)	
		2.10. Regime of discipline (compulsoriness)	<b>CSD</b>

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

3.1 Number of hours per week	<b>9,5</b>	3.2 From which - course	<b>3</b>	3.3 seminary/laboratory	<b>6,5</b>
3.4 Total hours in curriculum	<b>133</b>	3.5 From which - course	<b>42</b>	3.6 seminary/laboratory	<b>91</b>
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>7</b>
Training seminars / labs, homework, reports, portfolios, and essays					<b>6</b>
Tutoring					<b>3</b>
Examinations					<b>3</b>
Other activities, counselling, student scientific programs					<b>3</b>
3.7 Total hours of individual study	<b>42</b>				
3.9 Total hours per semester	<b>175</b>				
3.10 Number of credits	<b>7</b>				

**4. PREREQUISITES** (where appropriate)

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

**5. CONDITIONS** (where appropriate)

5.1. of course deployment	Lecture room/ online environment
5.2. of seminary/ lab deployment	Hospital room/ simulation center/ online environment

**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.</p> <p>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.</p> <p>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.) both in Romanian and in an international language.</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 diseases with respect to their epidemiological importance.
7.2 The specific objectives of the discipline	<p>Upon completion of the course the student will be able to learn:</p> <p><b>COGNITIVE SKILLS</b>, which will allow them to:</p> <ul style="list-style-type: none"> <li>▪ Understanding the notion of global cardiovascular risk;</li> <li>▪ Acquiring knowledge related to the main cardiovascular diseases encountered in general medical practice: epidemiology, pathophysiology, clinical and paraclinical diagnosis;</li> <li>▪ Learning the basics of clinical thinking and the notions of electrocardiography in emergency cardiology.</li> <li>▪ Acquiring practical knowledge related to other paraclinical explorations in Cardiology.</li> <li>▪ Acquiring the notions of Clinical Pharmacology of the cardiovascular system.</li> </ul> <p><b>PRACTICAL SKILLS:</b></p> <ul style="list-style-type: none"> <li>▪ to make the anamnesis and the clinical examination of the cardiovascular patient;</li> <li>▪ to draw up the clinical observation sheet;</li> <li>▪ to record the standard electrocardiogram;</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>▪ to be open to lifelong learning, 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
Acute rheumatic fever. Infective endocarditis	3
Myocarditis, cardiomyopathies	3
Pericarditis. Congenital heart disease	3
Valvular heart disease	3
Systemic hypertension (primary and secondary)	3
Ischemic heart disease	3
Acute coronary syndromes	3
Chronic heart failure	3
Acute heart failure	3
Diseases of the aorta. Peripheral arterial disease	3
Deep vein thrombosis. Acute pulmonary embolism	3
Syncope. Pulmonary artery hypertension	3
Cardiac arrhythmias	3
Heart blocks	3
<b>8.2 Practical work (topics / themes)</b>	
History and clinical examination in the patient with cardiovascular disease	6,5
The main clinical syndromes in cardiovascular pathology	6,5
Practical electrocardiography	6,5
Imaging explorations in cardiology	6,5

Biological explorations in cardiology	6,5
Diagnosis and treatment in hypertension	6,5
Diagnosis and treatment in coronary syndromes	6,5
Diagnosis and treatment in arrhythmias	6,5
Diagnosis and treatment in valvular diseases	6,5
Diagnosis and treatment in myocardial diseases	6,5
Diagnosis and treatment in heart failure	6,5
Diagnosis and treatment in diseases of the aorta and peripheral arteries	6,5
Diagnosis and treatment in venous diseases and pulmonary embolism	6,5
Cardiovascular pharmacology	6,5
<b>BIBLIOGRAPHY</b>	
1. The course.	
2. Octavian Istrătoaică, Constantin Militaru, Ionuț Donoiu (sub redacția): Medicină internă – cardiologie. Editura Medicala Universitară, 2020.	
3. Adam Feather, David Randall, Mona Waterhouse: Kumar și Clark Medicină Clinică. Leonard Azamfirei, Anca Dana Buzoianu, Dan Ionuț Gheonea – coordonatorii ediției în limba română, Ediția a 10-a, Editura Hipocrate, București, 2021. Cap. 29 - Boala Venoasă Tromboembolică - P.1001-1017. Cap. 30 – Cardiologie I. Resuscitarea Cardiacă - P.1045-1048 (Până La „Cardioversia Cu Curent Direct”). 2. Aritmiile Cardiace - P.1051-1069. 3. Insuficiența Cardiacă - P.1069-1079. 4. Boala Coronariană - Angina. Sindroamele Coronariene Acute - P.1079-1091. 5. Valvulopatii – P.1091-1103. 6. Endocardita Infecțioasă - P.1103-1107. 7. Bolile Miocardului - Miocardita. Cardiomiopatiile - P.1118-1124. 8. Bolile Pericardului - P.1125-1128. Cap. 31 – Hipertensiunea Arterială - P.1133-1145.	
4. Michael H. Crawford, Current Diagnosis and Treatment - Cardiology, Editura: Mc Graw Hill, Anul publicării: 2017, Ediția: 5, ISBN: 9781259641251	

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

The discipline of Cardiology is a specialized discipline, mandatory for a student to become a doctor. The knowledge, practical skills and attitudes learned in this discipline provide the basis for diagnosing and managing the patient with cardiovascular disease, useful regardless of subsequent specialization.

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.

## 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 fulfillment of all the objectives set out in the subject sheet.
Practical work	Didactical conversation, practical applications, euristic conversation. 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 fulfillment of all the objectives set out in the subject sheet.
Individual study	For the online version: lecture, debate, problematization based on materials provided in advance.

## 11. RECOVERY PROGRAM

Absences recoveries	No. absences that can be recovered	Location of deployment	Period	In charge	Scheduling of topics
	3	Filantropia hospital/Emergency hospital - cardiology/ online	Last week of semester	Group assistant	According to the internal schedule
Schedule consultations / Students' Scientific Program	1 hour/ week	Filantropia hospital/Emergency hospital - cardiology/ online	Weekly	All teaching assistants	The theme of the week. Student workshop: Practical echocardiography.

Program for students poorly trained	1 hour/ week	Filantropia hospital/Emergency hospital - cardiology/ online	Weekly	All teaching assistants	According to the situation of each student. Theme from that specific week.
<b>12. ASSESSMENT</b>					
<b>Activity</b>	<b>Types of assesment</b>	<b>Method of evaluation</b>		<b>Percentage from final grade</b>	
<b>Lecture</b>	Summative assesment during the exam.	Multiple Choice Questions Answering System (MCQ)/MCQ with the help of the IT platform in the online version.		80%	
<b>Practical work</b>	Formative assesment through Multiple Choice Questions Answering System (MCQ) or/and descriptive, projects, survey during the semester. Summative assesment during the exam.	Practical exam/ with the help of the video platform in the online version.		20%	
<b>Periodic assesment</b>	-	-		-	
<b>Assesment of individual activity</b>	-	-		-	
<b>Minimum performance standard</b>	At least 50% for each component of the evaluation				
<b>13. GUIDANCE AND COUNSELLING PROGRAMS</b>					
<b>Professional guidance and counselling programs (2 hours/month)</b>					
<b>Scheduling the hours</b>		<b>Location</b>		<b>In charge</b>	
First Friday of every month, at 11:00		Filantropia hospital/Emergency hospital - cardiology/ online		Course holders	

Endorsement date in the department: 28.09.2022

Department Director,  
Prof. univ. dr. Paul MITRUȚ

Coordinator of study program,  
Prof. univ dr. Marius Eugen CIUREA

Discipline holder,  
Prof. univ. Dr. Octavian ISTRĂTOAIE