



**MUĞLA SITKI KOÇMAN UNIVERSITY FACULTY of MEDICINE  
PHASE 6  
ENGLISH MEDICINE PROGRAM**

**COURSE of CARDIOLOGY  
COURSE GUIDEBOOK**

# PREFACE

**Dear Students,**

Welcome to the Cardiology course which is an important part of your education.

This guide describes what you will learn and perform during your course, the rules you must follow in our clinic, and the working conditions. We wish you all success with the belief that this guide will guide you sufficiently through your course studies.

**Department of Cardiology**

## GENERAL INFORMATION on COURSE

<b>Course Title</b>	: Cardiology
<b>Main Department of Course</b>	: Medical Sciences
<b>Department Responsible for Course</b>	: Cardiology
<b>Course Code</b>	: MED-6507
<b>Course Topic Code</b>	: MED
<b>Course Type</b>	: Elective
<b>Duration of the Course</b>	: 1 month
<b>Teaching Method of the Course</b>	: Formal
<b>ECTS</b>	: 5
<b>Language</b>	: English

## TEACHING METHODS-TECHNIQUES

### **a. Applied training methods**

- ✓ Inpatient bedside (service) trainings / Inpatient bedside (service) practical applications
- ✓ Participation in outpatient services / Practical applications at the outpatient clinic
- ✓ Bedside Training / Practical Practices at the Bedside
- ✓ Instructor visits (Story taking, file preparation and presentation, interactive discussion, monitoring)
- ✓ Operating room applications
- ✓ Medical record keeping and evaluation practices
- ✓ Participation in Branch Informatics Applications

### **b. Interactive learning activities:**

- ✓ Meetings, panels, group discussions,
- ✓ Case-based discussion sessions, problem-based training sessions with small groups, critical situation discussions, councils, gamification, structured case discussions,
- ✓ Readings and interpretations of works/articles

### **c. Vocational Skills applications**

- ✓ The minimum number of practices/studies required for reinforcing the proficiency gained in the previous education periods in the defined vocational skills is determined and it is ensured that each intern does it.

### **d. Teamwork**

### **e. Independent learning**

- ✓ Independent working hours

### **f. Other Educational Events**

- ✓ Clinical Case Reports
- ✓ Article Presentations
- ✓ Seminar/Lesson Presentations
- ✓ Literature Presentations
- ✓ Research and Presentation

## PHYSICAL SPACES

Teaching Activity	Physical Space	Explanation
Theoretical lessons	Morphology building ground floor classrooms	Morphology building ground floor classrooms
Inpatient bedside practice	Cardiology Inpatient Ward, intensive care unit	Hospital building; Floor -1, Floor 2
Outpatient Clinics	Cardiology Outpatient Clinics	
Case analysis	Theoretical education classrooms	
Problem-based teaching	Theoretical education classrooms	
Special audit applications	Echocardiography, coronary angiography, Holter, exercise stress test	Hospital building
Private field applications	Coronary angiography, intensive care unit	Coronary angiography, intensive care unit

## RELATED LEGISLATION

<http://www.tip.mu.edu.tr/tr/ilgili-mevzuat-6641>

## AIM(S) of the COURSE

<b>1</b>	In this course, it is aimed that the students be able to apply and develop the theoretical and practical cardiology knowledge gained in previous classes by taking the responsibility of the patient.
<b>2</b>	In this course, it is aimed that the students acquire the cardiology knowledge and skills that a general practitioner should have.

## OBJECTIVE(S) of the COURSE

1	To be able to make differential diagnosis in the patient presenting with chest pain, to be able to recognize acute coronary syndrome, NonSTEMI, STEMI and Angina Pectoris and to be able to perform emergency treatment.
2	To be able to take and interpret ECG.
3	To be able to make the differential diagnosis of cardiac diseases in the patient presenting with shortness of breath.
4	To be able to treat emergency hypertension.
5	To be able to explain the basic application logic of non-invasive procedures that are actively applied in cardiology clinic (related to ECO, EFOR and HOLTER monitoring).

## INTENDED LEARNING OUTCOME(S)

1	Can make differential diagnosis in the patient presenting with chest pain, can recognize acute coronary syndrome, NonSTEMI, STEMI and Angina Pectoris and can perform emergency treatment.
2	Can take and interpret ECG.
3	Can make the differential diagnosis of cardiac diseases in the patient presenting with shortness of breath.
4	Can treat emergency hypertension.
5	Can explain the basic application logic of non-invasive procedures that are actively applied in cardiology clinic (related to ECO, EFOR and HOLTER monitoring).



# DUTIES AND RESPONSIBILITIES OF STUDENTS and OTHER ISSUES

**Please read:** MSKU Medical Faculty Pre-Graduation Education Rules, Students' Responsibilities and Duties (MSKÜ Tıp Fakültesi Mezuniyet Öncesi Eğitiminde Öğrencilerin Uyması Gereken Kurallar, Öğrencilerin Sorumlulukları ve Görevleri)

**Web Site:** <https://tip.mu.edu.tr/tr/ilgili-mevzuat-6641>

## RECOMMENDED RESOURCE(S)

### KEY RESOURCE(S)

KEY RESOURCE(S)	Matched Course Outcome(s)
1. Braunwald's Heart Disease, Textbook of Cardiovascular Medicine	
2. The ESC Textbook of Cardiovascular Medicine	
3. Klinik Kardiyoloji Tanı ve Tedavi	
4. Anabilim Dalı Slayt ve videoları	
5. Kardiyolojide Semiyoloji	
6.Uptodate	

### ADDITIONAL RESOURCE(S)

ADDITIONAL RESOURCE(S)	Matched Course Outcome(s)
1. European Society of Cardiology (ESC) Guidelines. Link: <a href="https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines">https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines</a>	
2.Türk Kardiyoloji Derneği Kılavuzları. Link: <a href="https://tkd.org.tr/menu/44/ulusal-kilavuzlar">https://tkd.org.tr/menu/44/ulusal-kilavuzlar</a>	

# ASSESSMENT and EVALUATION

**Phase 6 Student Internship Success Criteria: (All criteria must be met)**

1. The student must fulfill the internship continuity criteria.
2. Candidate Physician Qualification Certificate scoring of 60 and above is considered successful.
3. Candidate Physician Logbook scoring of 60 and above is considered successful.

**Faculty of Medicine**  
**English Medicine Program**  
**Phase 6**  
**Cardiology**  
**Course**  
**Competence Matrix**

Course	PO1	P02	PO3	PO4	PO5	P06	P07	P08	P09	PO10	PO11	PO12	PO13
Cardiology	5	5	4	4	1	1	3	2	2	1	4	4	4

\* Completed according to the following program outcomes. (Score from 0 to 5.)

PO: Program Outcomes of Faculty of Medicine

PO Link: <https://muweb.mu.edu.tr/tr/program-yeterlilikleri-6598?site=tip.mu.edu.tr>

# CANDIDATE PHYSICIAN QUALIFICATION CERTIFICATE

<b>MUGLA SITKI KOCMAN UNIVERSITY</b> <b>MEDICAL SCHOOL</b> <b>CARDIOLOGY INTERNSHIP</b> <b>CANDIDATE PHYSICIAN QUALIFICATION CERTIFICATE</b>		
Student's name and surname: Number:		Beginning:/...../..... End: .../..../.....
<b>A</b>	<b>Participation in Internship Training Programs (25 points)</b> <ul style="list-style-type: none"> <li>✓ Seminar, article, case report etc.</li> <li>✓ Report-Homework Preparation etc.</li> <li>✓ Research etc.</li> </ul>	
<b>B*</b>	<b>Internship Logbook Score (50 points) *</b> <ul style="list-style-type: none"> <li>✓ Fulfilling the applications specified in the internship logbook in the desired number and level etc.</li> </ul>	
<b>C</b>	<b>Fulfilling Intern Physician Work Responsibilities: (25 points)</b> <ul style="list-style-type: none"> <li>✓ Learning the seizure system, taking over, and transferring patients, obeying the hours</li> <li>✓ Service Activities</li> <li>✓ Polyclinic Activities</li> <li>✓ Fulfillment of assigned tasks</li> <li>✓ Adaptation and Participation in Teamwork</li> <li>✓ Communication with patients and their relatives</li> <li>✓ Compliance with working hours etc.</li> </ul>	
<b>CONTINUITY:</b>		<b>Continuous (....)</b> <b>Discontinuous (.....)</b>
<b>RESULT:</b>		<b>Successful (....)</b> <b>Unsuccessful (.....)</b>
<b>EVALUATION SCORE:</b> (With numbers and text)  Score: ..... (out of 100)	<b>INTERNSHIP COORDINATOR ACADEMIC STAFF:</b> Date: Signature:	<b>HEAD OF DEPARTMENT</b>  Date: Signature:
<b>Phase 6 Student Internship Success Criteria: (All criteria must be met)</b> <ol style="list-style-type: none"> <li>4. The student must fulfill the internship continuity criteria.</li> <li>5. Candidate Physician Qualification Certificate scoring of 60 and above is considered successful.</li> <li>6. Candidate Physician Logbook scoring of 60 and above is considered successful.</li> </ol>		
<b>* Half of the Candidate Physician Internship Logbook Score must be reflected in the B field.</b>		

# CANDIDATE PHYSICIAN INTERNSHIP LOGBOOK

MUGLA SITKI KOCMAN UNIVERSITY MEDICAL SCHOOL CARDIOLOGY CANDIDATE PHYSICIAN INTERNSHIP LOGBOOK			
Student's name and surname:		Number:	
Beginning: ...../...../.....		End: ...../...../.....	Level
			Performed
1.	Patient file preparation, accurate record keeping, notifications	4	
2.	Taking a general and problem-oriented history, questioning all concomitant diseases	4	
3.	Cardiological system examination, examination, and evaluation of vital signs	4	
4.	Examining and interpreting all pulses	4	
5.	Venous fullness check	4	
6.	Developing and diagnosing a differential diagnosis approach	4	
7.	Evaluating the urgency of the clinical picture	4	
8.	Recognizing the symptoms of acute coronary syndrome and distinguishing its subgroups	4	
9.	Recognizing heart failure symptoms, physical examination findings	4	
10.	Defining and applying the Framingham criteria	4	
11.	Making heart failure classification	4	
12.	Identifying and questioning precipitating factors in heart failure worsening	4	
13.	Recognizing acute pulmonary edema	4	
14.	Recognizing asystole, ventricular fibrillation,	4	
15.	Questioning the 6 characteristics of stable angina pectoris	4	
16.	Distinguishing the type of shortness of breath	4	
17.	Palpating and interpreting the apex beat	4	
18.	Do not look for hepatojugular reflux	4	
19.	Looking and interpreting left-right ventricular activity	4	
20.	Distinguish heart sounds	4	
21.	Recognizing additional sounds	4	
22.	Recognizing and interpreting murmurs	4	
23.	Detection of cardiac effort capacity	4	
24.	Applying the principles of working with biological material	4	
25.	Obtaining a biological sample from the patient	3	
26.	Requesting rational laboratory and imaging examination	4	
27.	Taking the laboratory sample under appropriate conditions and deliver it to the laboratory	4	
28.	Using laboratory methods applied in primary care	4	
29.	Evaluating frequently requested laboratory results (normal and pathological interpretation) for heart patients, to plan further examinations if necessary.	4	
30.	Reading and evaluating direct radiographs	3	
31.	Arterial blood gas collection	3	
32.	Vascular access, venous blood collection	3	

33.	Measuring blood pressure	4	
34.	Urine catheter insertion	4	
35.	IM, IV, SC, ID injection	4	
36.	Perform pericardiocentesis	1	
37.	Taking and evaluating ECG	3	
38.	Providing basic life support (heart massage and artificial respiration)	3	
39.	Performing cardioversion and defibrillation	4	
40.	Coronary angiography and angioplasty procedure	2	
41.	Recognizing priority health problems and risk groups	3	
42.	Evaluating the person with his/her environment before getting sick	3	
43.	Providing healthy living information to the society (personal hygiene, physical activity, substance abuse, nutrition)	4	
44.	Monitoring and prevention of chronic diseases	4	
45.	Monitoring the inpatient, giving the treatment request/instructions completely and clearly, and following the clinical course	3	
46.	Applying the principles of rational drug use	4	
47.	Administering oral, rectal, vaginal and topical drugs	3	
48.	Treatment planning and prescription	4	
49.	Preparing a treatment refusal document	4	
50.	Preparing epicrisis	4	
51.	Appropriate referral of patients	4	
52.	Providing sufficient and understandable information to the patient and his/her relatives about the disease	3	
53.	Providing accurate and sufficient information to the patient and/or patient relatives about possible interventions/treatment options, obtaining consent for treatment	4	
54.	Communicating effectively with work team colleagues and trainers	4	
55.	Internship-specific item* .....		
56.	Internship-specific item* .....		
57.	Internship-specific item* .....		

<b>RESULT:</b>	<b>EVALUATION SCORE:</b>	<b>INTERNSHIP COORDINATOR</b>	<b>HEAD OF DEPARTMENT</b>
<b>Successful (...)</b>	<b>(With numbers and text)</b>	<b>ACADEMIC STAFF:</b>	
	Score: ..... (out of 100)	Date:	Date:
<b>Unsuccessful (.....)</b>		Signature:	Signature:

**Phase 6 Student Internship Success Criteria: (All criteria must be met)**

1. The student must fulfill the internship continuity criteria.
2. Candidate Physician Qualification Certificate scoring of 60 and above is considered successful.
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**\*The Department can remove the item(s) from the Internship Logbook and/or add the item(s) specific to the internship by specifying the level to the Internship Logbook. It is recommended that the department check that all NCEP-2020 Basic Medicine Practices and levels related to the internship are stated in the Internship Logbook.**

LEARNING LEVEL OF BASIC MEDICAL PRACTICES*	
Level	Explanation

1	Knows how the application is done and explains the results to the patient and / or their relatives
2	Makes the application in accordance with the guide / directive in an emergency
3	Makes the application* in uncomplicated, common, cases/cases
4	Makes the application** including complex situations/phenomenons
*Denotes the minimum level of performance, and therefore learning, that a physician who graduated from the faculty of medicine should exhibit during basic medicine practices. It is determined separately for each skill/application in the minimum level list. The faculties ensure that each student is able to perform the medical practice in question at the minimum level determined during the education period they apply.	
** Makes the preliminary evaluation/evaluation, creates, and implements the necessary plans, and informs the patient and their relatives/society about the process and its results.	
<b>*Source: NCEP 2020</b>	