

### MUĞLA SITKI KOÇMAN UNIVERSITY FACULTY of MEDICINE PHASE 4 ENGLISH MEDICINE PROGRAM

# **COURSE of MEDICAL INFORMATICS**

# 2022/2023 Academic Year COURSE GUIDEBOOK

### PREFACE

#### Dear Students,

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

In this course program, which is going to continue for 1 week, we aim to give the basic education of the course program in all aspects of theoretical courses and practical applications. 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 Medical Informatics**

### **GENERAL INFORMATION on COURSE**

Course Title	: Medical Informatics			
Main Department of Course	:Basic Sciences			
Department Responsible for Course	:Medical Education and			
Informatics				
Course Code	: MED-4503			
Course Topic Code	: MED4-			
Course Type	: Elective			
Duration of the Course	:1 week			
Teaching Method of the Course	: Formal			
ECTS	:1			
Language	: English			
Head of the department	: Prof. Dr. Mert KÜÇÜK			
Teaching Staff	: Prof. Dr. Mert KÜÇÜK			

Teaching Staff	Subject area	Theoretical Course duration (Hours)
Prof. Dr. Mert KÜÇÜK	Medical Education and Informatics	

Coordinator of the Department Education Program Coordinator of the Course Education Program Coordinator of the Course Examinations Coordinator of Course Assessment and Evaluation

- : **Prof. Dr. Mert KÜÇÜK** : Prof. Dr. Mert KÜÇÜK : Prof. Dr. Mert KÜÇÜK
- : Prof. Dr. Mert KÜÇÜK

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### **TEACHING METHODS-TECHNIQUES**

### 1. Theoretical lessons

### 2. Learning Centered Teaching

- a. Case-based discussion sessions
- b. Student case reports,
- c. Student case-subject presentations (Mini Presentation)

### 3. Interactive teaching

### **PHYSICAL SPACES**

Teaching Activity	Physical Space	Explanation	
Theoretical lessons	Morphology Building Classrooms	Morphology Classrooms	Building

### **RELATED LEGISLATION**

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

# AIM(S) of the COURSE

1	In this course, it is aimed that the students learn about the different electronic
	record keeping principles and systems in health institutions.
2	In this course, it is aimed that students learn the importance of health information
	systems in terms of health institutions management.

# **OBJECTIVE(S) of the COURSE**

1	To be able to explain the development and characteristics of health information
	systems.
2	To be able to examine the content and structures of health records, to be able to
	use data collection rules and data quality assurance methods.
3	To be able to explain the classification of diseases and coding systems, coding
	stages, and to be able to evaluate the factors affecting coding quality.
4	To be able to define database basic concepts, benefits of database management
	system, database design, Oracle database data types and to be able to apply basic
	SQL commands.
5	To be able to recognize the departments that make up hospital information
	systems, and to be able to explain their purpose and importance.
6	To be able to explain the stages of hospital information system development and
	to be able to evaluate the establishment of the hospital information system.
7	To be able to explain electronic health applications, usage areas, e-health
	applications in Turkey and European Union member countries.
8	To be able to explain the concept of ethics in health, undertake the obligation to
	keep health records, and to be able to explain the importance of confidentiality,
	security, and privacy of records.

# **INTENDED LEARNING OUTCOME(S)**

1	Can explain the development and characteristics of health information systems.
2	Can examine the content and structures of health records, can use data collection
	rules and data quality assurance methods.
3	Can explain the classification of diseases and coding systems, coding stages, and
	can evaluate the factors affecting coding quality.
4	Can define database basic concepts, benefits of database management system,
	database design, Oracle database data types and can apply basic SQL commands.
5	Can recognize the departments that make up hospital information systems and can
	explain their purpose and importance.
6	Can explain the stages of hospital information system development and can
	evaluate the establishment of the hospital information system.
7	Can explain electronic health applications, usage areas, e-health applications in
	Turkey and European Union member countries.
8	Can explain the concept of ethics in health, undertake the obligation to keep health
	records, and can explain the importance of confidentiality, security, and privacy of
	records.

## DUTIES and RESPONSIBILITIES OF STUDENTS and OTHER ISSUES

#### RESPONSIBILITIES

- 1. The training and education activities within the Course/Course blocks are carried out under the supervision of the instructor in charge of the course.
- Before the clinical / outpatient applications, they introduce themselves as "Trainee Doctor" to the patient, give information and get permission from the patient, take the patient's medical history and perform a physical examination. They perform other medical procedures under the supervision of instructors.
- 3. The clothing of the trainee doctors in the working environment should be appropriate for the health worker.
- 4. Trainee doctors wear their ID cards visibly inside the hospital and in all educational environments.
- 5. Trainee doctors should wear a white doctor's coat inside the hospital.
- 6. They attend the theoretical and practical courses given by the instructors, as well as the applied trainings under the supervision of the instructors.
- 7. They attend visits during service working hours in line with the curriculum prepared by the department; They monitor all kinds of medical interventions for diagnosis and treatment in outpatient clinics, services and other diagnosis and treatment units, and perform the procedures in the practice list in accordance with the National Core Education Program / MSKU Extended Education Program at the specified level during course under the permission and supervision of the trainer.
- 8. In line with the program prepared by the department, they take the medical history of the patients given to them for educational purposes in the units, perform the physical examination, determine the preliminary diagnosis, make the interpretation and differential diagnosis of the case and present it to the lecturer.
- They act in accordance with the principles and rules of medical professional ethics and deontology during practices.
- 10. They now the rights of patients and their relatives, acts respectfully to these rights and abides by the principle of confidentiality of patient information.

- 11. They do not share, use or accumulate for other purposes, information, documents and samples obtained from patients during training and practice studies with third parties, including patient relatives.
- 12. The patient should not inform the patient's relatives or third parties about the patient's medical condition and course without the knowledge and supervision of the instructors.
- 13. When they have serious information, observations and findings about patients that require changes in diagnosis and treatment, they immediately notify the relevant instructors.
- 14. They do not take the patient files out of the service.
- 15. They avoid behaviors that will harm patient safety and disrupt hospital hygiene.
- 16. During the course, they perform the tasks of preparing/presenting articles, preparing/presenting seminars, preparing/presenting interactive lessons, preparing/presenting cases and similar tasks.
- 17. All the work of the trainee students is for educational purposes only, and the trainee students cannot in any way be involved in the decisions, practices and records regarding the diagnosis, treatment, follow-up and medical care of the patients.
- 18. They know the patient rights regulation and the current health legislation and act accordingly.
- 19. During the course, it is important that the personal logbook is filled in carefully, signed and handed over to the responsible instructor at the end of the course.
- 20. They should be aware of the legislation of the Faculty of Medicine, including the Muğla Sıtkı Koçman University Faculty of Medicine Education-Training and Examination regulations, and act accordingly.
- 21. They act in accordance with the principles regarding attendance and other matters of Phase IV and V students in the MSKU Faculty of Medicine Education-Training and Examination Regulations.
- 22. As in all health institutions, they must comply with the rules, regulations and directives of the institution stated below.
  - ✓ Infection control rules
  - ✓ Rules on medical waste, household waste and recyclable waste
  - ✓ Radiation safety rules
  - ✓ Rules regarding employee health
  - ✓ Rules regarding patient safety

- ✓ Sample taking, sending, request writing, consent and similar rules
- ✓ Fire and safety precautions
- ✓ Ethical and deontological rules

**Please read:** MSKU Medical Faculty Pre-Graduation Education Rules, Students' Responsibilities and Duties

### **OTHER ISSUES:**

- 1. Course period is 1 week.
- 2. In addition to theoretical courses, practical courses are carried out during the course.
- 3. During the course, students are expected to comply with the dress code.
- 4. There is an obligation to continue during the course.

# **RECOMMENDED RESOURCE(S)**

### **KEY RESOURCE(S)**

KEY RESOURCE(S)	Matched Course
	Outcome(s)
1. Sağlık Kurumlarında Bilgi Sistemleri . Ed: Doç.Dr. Ali	SK 1-8
YILMAZ, Anadolu Üniversitesi, Eskişehir, 2019.	
2. Sağlık Bilişimi ve Güncel Uygulamalar. Ed: Yard. Doç. Dr.	SK 1-8
Başak Mendi Nobel Tıp Kitabevi, 2016	

### **ADDITIONAL RESOURCE(S)**

ADDITIONAL RESOURCE(S)	Matched Course Outcome(s)
1. Sağlık Kurumlarında Bilgi Sistemleri . Ed: Doç.Dr. Ali YILMAZ, Anadolu Üniversitesi, Eskişehir, 2019.	SK 1-8
<b>2.</b> Sağlık Bilişimi ve Güncel Uygulamalar. Ed: Yard. Doç. Dr. Başak Mendi Nobel Tıp Kitabevi, 2016	SK 1-8

# **ASSESMENT and EVALUATION**

#### Assessment and Evaluation Methods in Course Evaluation Exam

Assessment and Evaluation Method	Explanation	Role in the End of Course Evaluation	% Value for the End of Course Evaluation
Attendance to Classes		Compulsory	
Course Logbook		Compulsory	
Homework			%100
Total			%100

**Availability of Course Logbook, Place of Course Report in Course Assessment and Evaluation Principles** 

NA

**Existence of Attendance Requirement and Its Place in Course Assessment-Evaluation Principles** 

It is stated in the MSKU Faculty of Medicine Education and Examination Regulations.

The Effect of the Assessment and Evaluation Methods to be Applied on the Success Status at the End of the Course

Homework %100

Assessment and Evaluation Methods in Resit Examination

Assessment and	Explanation	Role in the End of	% Value at the End of
<b>Evaluation Method</b>	_	Course Evaluation	Course Evaluation
Attendance to		Compulsory	
Classes			
Course Logbook		Compulsory	
Homework			%100
Total			%100

### Assessment and Evaluation Methods in Single Course Resit Exam

Assessment and	Explanation	Role in the End of	% Value at the End
<b>Evaluation Method</b>	_	<b>Course Evaluation</b>	of Course Evaluation
Attendance to		Compulsory	
Classes			
Course Logbook		Compulsory	
Homework			%100
Total			%100

Faculty of Medicine English Medicine Program Phase 4													
				N	1edical	l Infor	matics						
				C	Compe	tence N	Aatrix						
Course Medical	PO1 3	<b>P02</b>	<b>PO3</b>	<b>PO4</b>	PO5	<b>P06</b>	<b>P07</b>	<b>P08</b>	<b>P09</b>	<b>PO10</b>	<b>PO11</b>	PO12	<b>PO13</b>
Informatics	U	_	_	-	U U	C	_	_	-		-	-	_
* 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-veterlilikleri-6598?site=tip.mu.edu.tr													
PO Link: http	s://mi	iweb.n	nu.edu	.tr/tr/	progra	m-yete	riiiikle	r1-6598	site=t	.ip.mu.	eau.tr		

### TRAINING ACTIVITY AND ASSESMENT AND EVALUATION METHODS MATCHING OF COURSE GAINS

Intended Learning Outcome	TRAINING ACTIVITY MATCHING	ASSESMENT AND EVALUATION
1.Can explain the development and characteristics of health	T, MP	HW
2.Can examine the content and structures of health records, can use data collection rules and data quality assurance methods.	T, MP	HW
3.Can explain the classification of diseases and coding systems, coding stages, and can evaluate the factors affecting coding quality.	T, MP	HW
4.Can define database basic concepts, benefits of database management system, database design, Oracle database data types and can apply basic SQL commands.	T, MP	HW
5.Can recognize the departments that make up hospital information systems and can explain their purpose and importance.	T, MP	HW
6.Can explain the stages of hospital information system development and can evaluate the establishment of the hospital information system.	T, MP	HW
7.Can explain electronic health applications, usage areas, e-health applications in Turkey and European Union member countries.	T, MP	HW
8.Can explain the concept of ethics in health, undertake the obligation to keep health records, and can explain the importance of confidentiality, security, and privacy of records.	T, MP	HW
Abbreviations Teaching Activity: Theoretical course (T), Individual Mini Presentatio Assessment Method: Homework (HW)	n (MP)	·

### INFORMATION AND MATCHING TABLE ON THE THEORETICAL AND PRACTICAL COURSES IN THE COURSE TO BE INCLUDED IN THE 2022- 2023 ACADEMIC YEAR COURSE PROGRAM

Lecture Code	Hour	Lecture Tvne	Lecture Subject	NCEP-020 Matching	Course Aim Matching	Course Learning Outcome	Activity Matching	Assessment and Evaluation	Vertical Integration	Horizontal Integration
MED4- BLS001	1	Т	Presentation of the course, meeting, Receiving expectations, Introduction to Medical Informatics	C5, C6,C7,C11	CA 1-2	CLO 1-8	TL	HW		
MED4- BLS002	1	Т	Evolution of Health Information Systems	C5, C6,C7,C11	CA 1-2	CLO 1-2	TL	HW		
TIP4- BLS003	3	Т	Content and Analysis of Health Records	C5, C6,C7,C11	CA 1-2	CLO 2	TL	HW		
MED4- BLS004	10	Т	Individual Mini Presentations	C5, C6,C7,C11	CA 1-2	CLO 1-8	LC	HW		
MED4- BLS005	5	Р	Free Study Time	C5, C6,C7,C11	CA 1-2	CLO 1-8	LC			
MED4- BLS006	4	Т	Disease Classification and Coding Systems	C5, C6,C7,C11	CA 1-2	CLO 3-4	TL	HW		
MED4- BLS007	1	Т	Data Base Management Systems	C5, C6,C7,C11	CA 1-2	CLO 4	TL	HW		
MED4- BLS008	5	Т	Hospital Information Systems	C5, C6,C7,C11	CA 1-2	CLO 5	TL	HW		
MED4- BLS009	2	Т	Hospital Information Systems Installation Process	C5, C6,C7,C11	CA 1-2	CLO 6	TL	HW		
MED4- BLS010	3	Т	E-Health	C5, C6,C7,C11	CA 1-2	CLO 7	TL	HW		
MED4- BLS011	4	Т	Health Records and Ethics	C5, C6,C7,C11	CA 1-2	CLO 8	TL	HW		