



RESEARCH PROJECT I (2019-2020)

INTRODUCTION OF THE COURSE

COURSE PERIOD	: Year 2 – Semester 1
COURSE CODE	: MED 217
COURSE DURATION	: 17 weeks
NATIONAL CREDIT	: 3
ECTS CREDIT	: 2
COURSE COORDINATOR	: Prof. Yasemin YAVUZ
COURSE SECRETARY	: Buket ADIŞANLI, Bahadır ÇEVRİM
COURSE DATES	: 24.02.2020 – 20.03.2020
TRAINING LOCATIONS	: Prof. Dr. Zeki Faik Ural Classroom, Prof. Dr. Kazım Türker Classroom, Rıdvan Ege Laboratory

COORDINATING DEPARTMENT

Biostatistics

CONTRIBUTING DEPARTMENTS

Biophysics
Histology & Embryology
Medical History & Ethics
Medical Pathology
Medical Pharmacology
Public Health
Technology Transfer Office

TEACHING STAFF

Prof. Ahmet ACIDUMAN
Prof. Kamil Can AKÇALI
Prof. Berna ARDA
Prof. Sevim AYDIN
Prof. Meltem ÇÖL
Prof. Atilla Halil ELHAN
Prof. Işinsu KUZU

Prof. Serap ŞAHİNOĞLU KUŞ
Prof. Yasemin YAVUZ
Prof. Nuray YAZIHAN
Assoc. Prof. Beyza ERDOĞAN
Assoc. Prof. Derya GÖKMEN
Assist. Prof. M. Volkan KAVAS
Şebnem DOĞAN

AIM OF THE COURSE

To gain knowledge about evidence-based medicine and basic concepts of biostatistics, and to gain knowledge and skills necessary to prepare the research project proposal form and the Ethics Committee application form.

LEARNING OBJECTIVES OF THE COURSE

Adopts the importance of the concept of evidence-based medicine and lists its steps.

Lists the basic concepts of biostatistics.

Knows the stages of scientific research.

Knows resources for literature search.

Knows the principles of establishing hypothesis.

Sorts the basic principles of research ethics.

Lists the national and international research resources.

Determines the aim of research project and makes the project planning.

Performs a literature search based on project aim.

Determines hypothesis convenient to research project.

Selects the resources based on project aim.

Prepares the Ethics Committee application form.

Prepares the scientific report.

Performs team working.

Communicates effectively with project team members at every stages of the research.

Communicates effectively with academic and statistical advisors at every stage of the research.

PROGRAM LEARNING OUTCOMES RELATED WITH COURSE LEARNING OBJECTIVES

COURSE LEARNING OBJECTIVES	PROGRAM LEARNING OUTCOMES
Adopts the importance of the concept of evidence-based medicine and lists its steps.	LO-1, LO-23
Lists the basic concepts of biostatistics.	LO-1
Knows the stages of scientific research.	LO-1, LO-25
Knows resources for literature search.	LO-1, LO-24
Knows the principles of establishing hypothesis.	LO-1, LO-25
Sorts the basic principles of research ethics.	LO-1, LO-25
Lists the national and international research resources.	LO-1, LO-25
Determines the aim of research project and makes the project planning.	LO-25
Performs a literature search based on project aim.	LO-24, LO-25
Determines hypothesis convenient to research project.	LO-25
Selects the resources based on project aim.	LO-24, LO-25
Prepares the Ethics Committee application form.	LO-25
Prepares the scientific report.	LO-25
Performs team working.	LO-25
Communicates effectively with project team members at every stages of the research.	LO-11, LO-25
Communicates effectively with academic and statistical advisors at every stage of the research.	LO-11, LO-25

ASSESSMENT AND EVALUATION

ASSESSMENT SYSTEM

MID-TERM EXAM	Homework preparation
FINAL EXAM	<ul style="list-style-type: none">• Evaluation of preliminary results report of research project (40%)• Written exam consisting of multiple-choice questions (40%)
CALCULATION OF COURSE FINAL SCORE	Mid-term exam : 30% Final exam : 80%

PROGRAM EVALUATION

Evaluation at the end of the course is implemented both orally and electronically using structured evaluation forms.

SUMMARY OF THE COURSE

	Lecture	Practice	Study with Advisors	Group Study	Total
Research Project I	26	8	16	14	64

COURSE PROGRAM

WEEK-1

WEDNESDAY (18.09.2019)

08.30-09:15	Introduction of the course	Biostatistics
09:30-10:15		
10:30-11:15	Evaluation of research project	Lect. in BA's Office
11:30-12:15	Evaluation of research project	Lect. in CA's Office
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEMS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

BA: Biostatistics Advisor, CA: Clinical Advisor

WEEK-2

WEDNESDAY (25.09.2019)

08.30-09:15	Ethics committees	Prof. Ahmet ACIDUMAN
09:30-10:15	Application to the ethics committee of student research	Prof. Ahmet ACIDUMAN
10:30-11:15	Finalizing the Ethics Committee Application Form	Group Study
11:30-12:15	Evaluation of Ethics Committee Application Form	Lect. in BA's Office
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEMS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-3

WEDNESDAY (02.10.2019) (04.10.2019 - ETHIC COMMITTEE APPLICATION)

08.30-09:15	What is evidence-based medicine?	Prof. Meltem ÇÖL
09:30-10:15	Five steps in the process of evidence-based medicine	Prof. Meltem ÇÖL
10:30-11:15	Application to ethics committee	Group Study
11:30-12:15		

12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEMS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-4		
WEDNESDAY (09.10.2019)		
08.30-09:15	Resources for funding medical researches	Prof. Sevim AYDIN
09:30-10:15	National and international research strategies and resources	Şebnem DOĞAN
10:30-11:15	Current projects in Ankara University / Discussion	Prof. Kamil Can AKÇALI
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEMS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-5		
WEDNESDAY (16.10.2019)		
08.30-09:15	Project work plan and time frame	Prof. Işinsu KUZU
09:30-10:15	Writing a grant and proposal	Prof. Nuray YAZIHAN
10:30-11:15	Assessment of available grant application resources for the projects	Group Study
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEM DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-6		
WEDNESDAY (23.10.2019)		
08.30-09:15	Basic concepts related to biostatistics	Biostatistics

09:30-10:15	Basic concepts related to biostatistics	Biostatistics
10:30-11:15	Work on the project	Group Study
11:30-12:15	Evaluation of research project	Lect. in CA's Office
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEM DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-7

WEDNESDAY (30.10.2019)

08.30-09:15	Database preparation in SPSS program	Biostatistics (Rıdvan Ege Laboratory)
09:30-10:15		
10:30-11:15	Practice: Database preparation in SPSS program	Biostatistics (Rıdvan Ege Laboratory)
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEM DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-8

WEDNESDAY (06.11.2019)

08.30-09:15	Descriptive statistics	Biostatistics (Rıdvan Ege Laboratory)
09:30-10:15		
10:30-11:15	Practice: Descriptive statistics	Biostatistics (Rıdvan Ege Laboratory)
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEM DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-9**WEDNESDAY (13.11.2019)**

08.30-09:15	Summarizing of qualitative data with tables and graphics	Biostatistics (Rıdvan Ege Laboratory)
09:30-10:15	Practice: Summarizing of qualitative data with tables and graphics	Biostatistics (Rıdvan Ege Laboratory)
10:30-11:15	Summarizing of quantitative data with tables and graphics	Biostatistics (Rıdvan Ege Laboratory)
11:30-12:15	Practice: Summarizing of quantitative data with tables and graphics	Biostatistics (Rıdvan Ege Laboratory)
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEM DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-10**WEDNESDAY (20.11.2019)**

08.30-09:15	Overview of hypothesis tests	Biostatistics
09:30-10:15	Confidence intervals, population mean and significance test for ratio	Biostatistics
10:30-11:15	Practice: Confidence intervals, population mean and significance test for ratio	Biostatistics (Rıdvan Ege Laboratory)
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	INTRODUCTION TO HUMAN SYSTEM DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-11**WEDNESDAY (27.11.2019)**

08.30-09:15	Work on the study project (data collection, database preparation, descriptive statistics, confidence intervals, summarizing data with tables and graphics)	Group Study
09:30-10:15		
10:30-11:15		
11:30-12:15		

12:15-13:30	Lunch Break	
13:30-14:15	Milestones in the history of research ethics	Prof. Berna ARDA
14:30-15:15	Research ethics	Prof. Berna ARDA
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-12		
WEDNESDAY (04.12.2019)		
08.30-09:15	Discussion with BA about the database preparation and preliminary results	Lect. in BA's Office
09:30-10:15		
10:30-11:15	Discussion with CA about the preliminary results	Lect. in CA's Office
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Physician and patient roles	Assist. Prof. M. Volkan KAVAS
14:30-15:15	Gender issues in medicine	Prof. Serap ŞAHİNOĞLU KUŞ
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-13		
WEDNESDAY (11.12.2019)		
08.30-09:15	Writing a report about preliminary results of the research	Group Study
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Milestones in the history of western medicine – Age of Enlightenment	Prof. Ahmet ACIDUMAN
14:30-15:15		
15:30-16:15	Information and Communication Technologies	
16:30-17:15	Information and Communication Technologies	

WEEK-14		
WEDNESDAY (18.11.2019)		
08.30-09:15	Feedback on the preliminary results report	Lect. in BA's Office
09:30-10:15		

10:30-11:15	Feedback on the preliminary results report	Lect. in CA's Office
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	MUSCULOSKELETAL SYSTEM AND DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-15

WEDNESDAY (25.12.2019)

08.30-09:15	Feedback on the preliminary results report	Lect. in BA's Office
09:30-10:15		
10:30-11:15	Feedback on the preliminary results report	Lect. in CA's Office
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	MUSCULOSKELETAL SYSTEM AND DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

WEEK-16

WEDNESDAY (01.01.2020)

08.30-17:15	NEW YEAR'S DAY	
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WEEK-17

WEDNESDAY (08.01.2020)

08.30-09:15	Handing in the preliminary results report	
09:30-10:15	FINAL EXAM	
10:30-11:15	FEEDBACK SESSION ON THE COURSE	All Faculty Members
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	MUSCULOSKELETAL SYSTEM AND DISORDERS	
14:30-15:15		
15:30-16:15	Information and Communication Technologies II	e-Learning
16:30-17:15	Information and Communication Technologies II	e-Learning

READING/STUDYING SOURCES

- Fundamentals of Biostatistics (8th Edition); Bernard Rosner; Cengage Learning, Boston, 2016.
- Biostatistics: A Foundation for Analysis in the Health Sciences (10th Edition); Wayne W. Daniel; Chad L. Cross; John Wiley & Sons, 2013.