



INTRODUCTION TO RESEARCH PROJECTS

INTRODUCTION OF THE COURSE

COURSE PERIOD	: Year 1 – Semester 2
COURSE CODE	: MED106
COURSE DURATION	: 4 weeks
NATIONAL CREDIT	: 4
ECTS CREDIT	: 6
COURSE COORDINATOR	: Professor Atilla Halil ELHAN
COURSE SECRETARY	:
COURSE DATES	: 22.04.2019 – 17.05.2019
TRAINING LOCATIONS	: Pink Hall, Yellow Hall, Rıdvan Ege Laboratory, Instructor's Offices, Occupational Skills Laboratory, Communication Skills Laboratory

COORDINATOR DEPARTMENT

Biostatistics

CONTRIBUTING DEPARTMENT

Medical Education and Informatics

TEACHING STAFFS

Prof. Dr. Atilla Halil ELHAN
Prof. Dr. Yasemin YAVUZ
Doç. Dr. Derya GÖKMEN
Doç. Dr. Beyza DOĞANAY ERDOĞAN

AIM OF THE COURSE

To gain knowledge about basic statistical methods, and to gain knowledge and skills necessary to prepare a research project and make a project application. Also, to gain skills for basic communication and medical practices.

LEARNING OBJECTIVES OF THE COURSE

Defines basic statistical methods.

Describes data and variable concepts.

Knows resources for literature search.

Knows principles of establishing hypothesis.

Explains the determining sample.

Knows to prepare database.

Performs a literature search based on project aim.

Selects sources based on project aim.

Interprets scientific articles.

Makes scientific presentation.

Determines purpose for research project.

Determines hypothesis convenient to the project.

Determines sample size for the project.

Creates a database suitable for the project.

Selects appropriate statistical methods for the project.

Prepares project proposal form.

Prepares the Ethics Committee application form.

Performs team working.

Knows and applies basic communication skills.

Performs basic medical skills (intravenous injection, opening the vein pathway)

PROGRAM LEARNING OUTCOMES RELATED WITH COURSE LEARNING OBJECTIVES

COURSE LEARNING OBJECTIVES	PROGRAM LEARNING OUTCOMES
Defines basic statistical methods.	LO-1
Describes data and variable concepts.	LO-1
Knows resources for literature search.	LO-1, LO-24
Knows principles of establishing hypothesis.	LO-1, LO-25
Explains the determining sample.	LO-1
Knows to prepare database.	LO-1, LO-25
Performs a literature search based on project aim.	LO-24, LO-25
Selects sources based on project aim.	LO-24, LO-25
Interprets scientific articles.	LO-24, LO-25
Makes scientific presentation.	LO-25
Determines purpose in research project.	LO-25
Determines hypothesis convenient to project.	LO-25
Determines sample size for project.	LO-25
Creates a database suitable for the project.	LO-25
Selects appropriate statistical methods for the project.	LO-25
Prepares project proposal form.	LO-25
Prepares the Ethics Committee application form.	LO-25
Performs team working.	LO-25
Knows and applies basic communication skills.	LO-1, LO-6
Performs basic medical skills (intravenous injection, opening the vein pathway)	LO-1, LO-3

ASSESSMENT AND EVALUATION

ASSESSMENT SYSTEM

MIDTERM EXAM	Evaluation by project advisors
PRACTICAL EXAM AT THE END OF COURSE	Objectively structured clinical exam
FINAL PROJECT ASSESSMENT	Evaluation of project application by advisors
CALCULATION OF COURSE FINAL SCORE	Midterm exam : 20% Practical exam at the end of course : 30% Final project assessment : 50%

PROGRAM EVALUATION

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

SUMMARY OF THE COURSE

	Biostatistics	Medical Education and Informatics	Total
Lecture	28		28
Study with advisors	32		32
Group study	20		20
Medical skills		12	12
Communication skills		6	6
TOTAL	80	18	98

COURSE PROGRAM

WEEK-1

MONDAY (22.04.2019)

08:30-09:15		
09:30-10:15	Resources for literature search: Performing a literature search (databases, e-library)	Lecture
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Performing a literature search and review	Group Study
14:30-15:15		
15:30-16:15	Turkish Language	
16:30-17:15	Turkish Language	

TUESDAY (23.04.2019)

08:30-09:15	NATIONAL SOVEREIGNTY AND CHILDREN'S DAY	
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30		
13:30-14:15		
14:30-15:15		
15:30-16:15		
16:30-17:15		

WEDNESDAY (24.04.2019)

08:30-09:15	Basic Medical Skills (Intravenous injection)	
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Basic Communications Skills	
14:30-15:15		
15:30-16:15	Information and Communication Technologies	
16:30-17:15	Information and Communication Technologies	

THURSDAY (25.04.2019)		
08.30-09:15	Preparing a report for the literature review	Group Study
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Preparing a presentation for the literature review report	Group Study
14:30-15:15		
15:30-16:15	Independent Learning Session	
16:30-17:15		
FRIDAY (26.04.2019)		
08.30-09:15	Presentation of the literature review report to the clinical and biostatistics advisors	Presentation in Instructor's Office
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	What have we learned this week?	
14:30-15:15		
15:30-16:15		
16:30-17:15		

WEEK-2		
MONDAY (29.04.2019)		
08.30-09:15	Feedback meeting on the study subject and preliminary objectives	Discussion in Instructor's Office
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Revising preliminary objectives in accordance with the feedbacks of biostatistics advisor	Group Study
14:30-15:15		
15:30-16:15	Turkish Language	
16:30-17:15	Turkish Language	
TUESDAY (30.04.2019)		

08.30-09:15	Specifying the study population, primary outcome and independent variables, inclusion and exclusion criteria and data resources (file records, questionnaires, etc.)	Lecture
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Ataturk's Principles and History of Revolution	
14:30-15:15	Ataturk's Principles and History of Revolution	
15:30-16:15	Specifying the study population, primary outcome and independent variables, inclusion and exclusion criteria and data resources (file records, questionnaires, etc.)	Lecture in Instructor's Office
16:30-17:15		
WEDNESDAY (01.05.2019)		
08.30-09:15	LABOR AND SOLIDARITY DAY	
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30		
13:30-14:15		
14:30-15:15		
15:30-16:15		
16:30-17:15		
THURSDAY (02.05.2019)		
08.30-09:15	Sampling, and determining the sample size	Lecture
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Independent Learning Session	
14:30-15:15		
15:30-16:15		
16:30-17:15		
FRIDAY (03.05.2019)		
08.30-09:15	Sampling, and determining the sample size	Lecture in Instructor's Office
09:30-10:15		
10:30-11:15		
11:30-12:15		

12:15-13:30	Lunch Break	
13:30-14:15	What have we learned this week?	
14:30-15:15		
15:30-16:15		
16:30-17:15		

WEEK-3		
MONDAY (06.05.2019)		
08.30-09:15	Preparation of data collection tools	Lecture in Instructor's Office
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Biostatistics, data and variable concepts	Lecture
14:30-15:15		
15:30-16:15	Turkish Language	
16:30-17:15	Turkish Language	
TUESDAY (07.05.2019)		
08.30-09:15	Database preparation in SPSS	Lecture
09:30-10:15		
10:30-11:15	Completion of Project Proposal Form and Ethics Committee Application Form - I	Group Study
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Ataturk's Principles and History of Revolution	
14:30-15:15	Ataturk's Principles and History of Revolution	
15:30-16:15	Completion of Project Proposal Form and Ethics Committee Application Form - I	Group Study
16:30-17:15		
WEDNESDAY (08.05.2019)		
08.30-09:15	Basic Medical Skills (Opening the vein pathway)	
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	

13:30-14:15	Basic Communication Skills	
14:30-15:15		
15:30-16:15	Information and Communication Technologies	
16:30-17:15	Information and Communication Technologies	
THURSDAY (09.05.2019)		
08.30-09:15	Descriptive statistics	Lecture
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Independent Learning Session	
14:30-15:15		
15:30-16:15		
16:30-17:15		
FRIDAY (10.05.2019)		
08.30-09:15	Descriptive statistics	Lecture
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	What have we learned this week?	
14:30-15:15		
15:30-16:15		
16:30-17:15		

WEEK-4		
MONDAY (13.05.2019)		
08.30-09:15	Selection of appropriate hypothesis test	Lecture
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Preparing a database in SPSS related to study	Lecture in Instructor's Office
14:30-15:15		

15:30-16:15	Turkish Language	
16:30-17:15	Turkish Language	
TUESDAY (14.05.2019)		
08.30-09:15	Preparing for article presentation	Group Study
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Ataturk's Principles and History of Revolution	
14:30-15:15	Ataturk's Principles and History of Revolution	
15:30-16:15	Completion of Project Proposal Form and Ethics Committee Application Form - II	Group Study
16:30-17:15		
WEDNESDAY (15.05.2019)		
08.30-09:15	Basic Medical Skills (Intravenous injection, opening the vein pathway)	
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Basic Communication Skills	
14:30-15:15		
15:30-16:15	Information and Communication Technologies	
16:30-17:15	Information and Communication Technologies	
THURSDAY (16.05.2019)		
08.30-09:15	Article presentation	Presentation and Discussion in Instructor's Office
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	Independent Learning Session	
14:30-15:15		
15:30-16:15		
16:30-17:15		
FRIDAY (17.05.2019)		

08:30-09:15	Finalizing the Project Proposal Form and the Ethics Committee Application Form	Study in Instructor's Office
09:30-10:15		
10:30-11:15		
11:30-12:15		
12:15-13:30	Lunch Break	
13:30-14:15	OBJECTIVELY STRUCTURED CLINICAL EXAMINATION	
14:30-15:15		
15:30-16:15	FEEDBACK SESSION OF COURSE	
16:30-17:15		

READING/STUDYING SOURCES

- Fundamentals of Biostatistics (8th Edition); Bernard Rosner; Cengage Learning, Boston, 2016.
- Discovering Statistics Using IBM SPSS Statistics (4th Edition); Andy Field; Sage, Los Angeles, 2013.
- Biostatistics: A Foundation for Analysis in the Health Sciences (10th Edition); Wayne W. Daniel; Chad L. Cross; John Wiley & Sons, 2013.