



**AYDIN ADNAN MENDERES UNIVERSITY**  
**GRADUATE SCHOOL OF HEALTH SCIENCES**  
**BIostatISTICS**  
**BIostatISTICS (MEDICAL)**  
**BIostatISTICS (MEDICAL) MASTER**  
**COURSE INFORMATION FORM**

Course Title	Epidemiology								
Course Code	BİS538			Course Level		Second Cycle (Master's Degree)			
ECTS Credit	4	Workload	100 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To become familiar with epidemiologic terminology, outcome measures, and study designs; to appreciate application of epidemiology to subfields (e.g., infectious diseases, reproductive health, genetics); and to apply epidemiologic methods to current public health issues.								
Course Content	Basic principles and concepts of epidemiology; design, analysis and interpretation of epidemiological studies; the study of chronic diseases, infectious diseases and genetic epidemiology; measures of disease incidence and prevalence and measures of effect; cohort, case-control studies and their strengths and limitations.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Case Study								
Name of Lecturer(s)									

#### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

#### Recommended or Required Reading

1	Beaglehole, R. (1998). Temel epidemiyoloji. Nobel & Güneş Tıp Kitabevi.
2	Akbulut, İ., & Sabuncu, H. (1993). Sağlık bilimlerinde araştırma yöntemi, Epidemiyoloji Prensi ve Uygulamalar. Sistem Yayıncılık, Örünç Ofset, İstanbul.
3	Rothman, K. J., Greenland, S., & Lash, T. L. (2008). Modern epidemiology (Vol. 3). Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.
4	Szklo, M., & Nieto, F. J. (2014). Epidemiology: beyond the basics. Jones & Bartlett Publishers.

Week	Weekly Detailed Course Contents	
1	Theoretical	Measuring Disease Occurrence
2	Theoretical	Surveillance
3	Theoretical	Infectious Disease Epidemiology
4	Theoretical	Direct & Indirect Standardization
5	Theoretical	Data Sources & Secondary Analyses
6	Theoretical	Hypothesis Testing & Significance
7	Theoretical	Bias, Confounding & Effect Modification
8	Intermediate Exam	Midterm Examination
9	Theoretical	Causation & Risk
10	Theoretical	Sampling Strategies & Descriptive Studies (Ecological, Cross Sectional, and Qualitative)
11	Theoretical	Case Control & Nested Case Control Studies
12	Theoretical	Cohort Studies & CBPR
13	Theoretical	Intervention Studies
14	Theoretical	Screening
15	Theoretical	Literature review and discussion
16	Final Exam	Final exam

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	1	14	2	16
Assignment	1	10	0	10
Quiz	10	2	1	30



Midterm Examination	1	20	2	22
Final Examination	1	20	2	22
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Distinguish the roles and relationships between epidemiology and biostatistics in the prevention of disease and the improvement of health.
2	Compute basic descriptive statistics and explore data analytic methods.
3	Demonstrate a basic understanding of epidemiologic methods and study design.
4	Combine appropriate epidemiological concepts and statistical methods.
5	Planning, application and evaluation of epidemiological research

### Programme Outcomes (*Biostatistics (Medical) Master*)

1	To be able to understand the interdisciplinary interaction related with biostatistics.
2	to be able to use Theoretical and practical knowledge at the level of expertise.
3	To be able to interpret the information by integrating information from different disciplines and create new information
4	To be able to analyze the problems encountered by using research methods
5	to be able to conduct a study as an independent specialist
6	To be able to formulate solutions for complex unpredictable problems encountered by developing new approaches and taking responsibility.
7	To be able to resolve problems in environments that require leadership.
8	To be able to evaluate and direct knowledge and skills with a critical approach at the level of expertise.
9	To be able to give statistical advise at the beginning stages of preparing health related projects
10	To be able to get the knowledge and the ability of using statistical packages

### Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4
P1	5	3	4	5
P2	4	4	5	4
P3	4	4	4	4
P4	4	4	4	4
P5	3	4	5	5
P6	4	4	4	4
P7	3	3	4	4
P8	4	3	4	4
P9	4	3	4	4
P10	4	4	4	4

