Course Syllabus

Code - Course Title	**İST241 - Biostatistics**
Course Type	V. SEMESTER
Laboratory + Practice	3+0
ECTS	**4.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	PROF. DR. HÜSEYİN GÜRBÜZ

Mode of Delivery	The mode of delivery of this course is face to face.
Place of Delivery	On Campus
Used Educational Platforms	Online
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	There is no recomended optional programme component for this course.
Recommended Resources	Kadir Sümbüloğlu and Vildan Sümbüloğlu (2019). Biostatistics, Ankara: Hatiboğlu Publishing. Yalçın Karagöz (2015). Biostatistics, Ankara: Nobel Publishing. Kazım Özdamar (2003). Biostatistics with SPSS, Kaan Kitabevi, Eskişehir.; Yalçın Karagöz (2021), Applied Biostatistics with SPSS AMOS Meta, Nobel Publishing, Istanbul.
Work Placement	N/A
Aims of the Course	The aim of the Biostatistics course is to develop students' competencies in analyzing and interpreting data using scientific methods and making correct decisions under uncertainty.

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Teaching of biostatistics concepts	Lecture, Question & Answer, Discussion, Problem Solving
Week - 2		Examining principal definitions and concepts	
Week - 3		Examining data display methods	
Week - 4		Examining measures of location	
Week - 5		Examining insensitive means: Mode, Median and Quantiles	
Week - 6		Review of the 1.-5. weeks	
Week - 7		Examining measures of variation	
Week - 8		Examining normal distribution	
Week - 9		Examining binomial distribution	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 10		Examining sampling distributions	
Week - 11		Examining hypothesis testing	
Week - 12		Review of the 7.-11. weeks	
Week - 13		Presenting ratio comparing	
Week - 14		Examining hypothesis testing with small samples	

Learning Outcomes

#	Learning Outcome
1	The student will be able to define the basic concepts regarding the science of biostatistics.
2	collect data relating to variable/variables which will be examined and calculate descriptive statistics from these data.
3	identify distribution form relating to the variable/variables.
4	apply hypothesis testing via some of the statistical distributions.
5	Learning statistical concepts and basic terminology. Collecting, organizing, and presenting data using graphs. Calculating and interpreting measures of central tendency and dispersion. Understanding probability and probability distributions. Applying sampling and estimation methods. Interpreting results by performing hypothesis tests. Being able to make scientific decisions based on statistical findings.

Sustainable Development Goals

✓ Quality Education

Course Theme

✓ Data Science

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0.00	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0.00	0	0
Ödevler	0.00	0	0
Proje - Rapor - Sunum Hazırlama	0.00	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0.00	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0.00	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0.00	0	0
Staj Uygulaması	0.00	0	0

AKTS Workload

Activity	Duration (Hour)	Count	Workload
		Calculated ECTS	**0.0**

Assessment Method and Passing Requirements

✓ Open-Ended Test ✓ Multiple Choice Test ✓ Homework

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	40
Final Exam	1	60
	Sum (%)	**100**

Community Service Activity

External stakeholders collaborated with in community service activities within the course:
✓ Public institutions and organizations ✓ Educational institutions ✓ Healthcare institutions ✓ Other universities / academic institutions

Target audience of the community service activities carried out within the course:
✓ Public sector employees ✓ Private sector / industry employees ✓ Students ✓ Educators

Type of community contribution arising from the course:
✓ Awareness raising ✓ Education and knowledge sharing ✓ Contribution to health and quality of life ✓ Research and knowledge production