Faculty of Economics and Political Science

Introduction to Statistics

Information :

Course Code :	STS 101	**Level**	: Undergraduate	**Course Hours :**	3.00- Hours

Department :	Faculty of Economics and Political Science

Area Of Study :

This course presents the basic statistical ideas that are used in different social science disciplines. The course covers various statistical instruments such as: calculating the measures of central tendency (mean- median- mode- variance- standard deviation), providing the students with different graphical illustrations (histogram- bar charts- pie charts- stem and leaf-line and scatter plot), analyzing data and its distribution (discrete distribution-continuous distribution), as well as covering structures and methods of probability distributions. The course also familiarizes students with the use of statistical software program.

Course Goals:
˝ÁPrepare students with a deeper insight on the possible sub-fields in economics, political science, public administration and mass media.
˝ÁOrganize analyses, interpret and summarize the data in a useful and informative manner.
˝ÁDistinguish between different kinds of data and how they can describe the data in several behaviors.

Description :

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Course outcomes :

a.Knowledge and Understanding: :

1 -	1.1) Understand data types, how data should be sampled, tabulated and graphed.
2 -	1.2) Comprehend frequency distributions and different graphical techniques.
3 -	1.3) Differentiate between descriptive and inferential statistics

b.Intellectual Skills: :

1 -	3.1) Analyze problems and design problem solving techniques.
2 -	3.2) Compare and examine observational studies.
3 -	3.3) Analyze data using graphs Construct a frequency distribution, histogram, pie chart and a scatter plot.

c.Professional and Practical Skills: :

1 -	2.1) Select the right sample, distinguishing between random and nonrandom sampling.
2 -	2.2) Select the appropriate law of probability to use in solving problems.

3 -	2.3) Compute the mean, median, mode, percentile, quartile, range and variance on grouped and ungrouped data.
4 -	2.4) Distinguish between discrete distribution and continuous distribution.
5 -	2.5) Experiment probability theory and rules.

d.General and Transferable Skills: :

1 -	4.1) Enhance critical thinking and innovation.
2 -	4.2) Abstract reasoning, methodological knowledge and technical know-how.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introductory Lecture and Course Outline	5	1	1
Data Collection ˝Á Methods of Collecting Data ˝Đ Descriptive vs. Inferential Statistics	5	1	1
Population, Sample and Sampling Techniques	5	1	1
Data Description: Charts and graphical representation ˝Á Frequency Distribution ˝Á Histograms ˝Á Bar Chart- Pie chart- Stem and Leaf Diagram ˝Á Scatter Plot and Line Chart	10	2	2
Midterm Exam		1	
Measuring of Center and Location: ˝Á Population Mean and Sample Mean ˝Á Median ˝Á Mode ˝Á Weighted Mean ˝Á Percentiles and Quartiles	10	2	2
Measurements of Variation: ˝Á Range ˝Á Interquartile range ˝Á Population Variance and Standard Deviation ˝Á Sample Variance and Standard Deviation ˝Á Coefficient of Variation	15	3	3
Introduction to Probability: ˝Á Probability Rules	15	3	3
Final Exam		1	

Teaching And Learning Methodologies :

Presentation
Group discussion
Research Paper

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Course Work (Attendance, Participation, Assignments, Quizzes, Research Paperõ D	30.00		To assess theoretical background of the intellectual and practical skills
Final Exam	40.00	15	To assess knowledge and intellectual skills
Midterm Exam	30.00	6	To assess professional skills

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