Faculty of Economics and Political Science

Applied Statistics

Information :

Course Code :	STS 311	**Level** :	Undergraduate	**Course Hours :**	3.00- Hours

Department :   Department of Economics

Area Of Study :

This course uses different statistical methods in analyzing data and how it can be attained through various sampling techniques as well as explaining sampling errors. It provides students with the suitable technicalities as conducting surveys and questionnaires. It stresses on hypothesis testing, confidence interval, interpretations of economic variables, variables estimation and sampling distributions.

Course Goals:
˝ÁPrepare students with a deeper insight on the possible sub-fields in economics and related fields.
˝ÁRecognize and analyze testing hypothesis and estimation.
˝ÁOrganize analyses, interpret and summarize the data in a useful and informative manner.

Description :

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Course outcomes :

a.Knowledge and Understanding: :

1 -	Select the right sample and distinguish between random and nonrandom sampling.
2 -	Estimation and Testing Hypothesis
3 -	Understand and know the usefulness of probability in decision making.

b.Intellectual Skills: :

1 -	Interpret the results of a simple regression analysis and variables correlations.
2 -	Analyze real economic situation using statistical methods and provide recommendations.
3 -	Appraise and analyze the hypothesis testing and confidence interval.

c.Professional and Practical Skills: :

1 -	Practice decision making through hypothesis testing.
2 -	Calculate the trade-off between sample size and error.
3 -	Estimate the mean and proportion of population from sample information.
4 -	Identify the proper statistical technique to apply to a problem.

d.General and Transferable Skills: :

1 -	Test the ability of students to work under pressure and as part of a team
2 -	Acquire analytical reasoning skills, numeric and clear effective communication skills.
3 -	Experience with conceptual frameworks effective for problem solving and decision making.
4 -	Enhance creative and critical thinkers.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introductory Lecture and Course Outline	3	1	
Introduction to Sampling Distribution: ˝ÁSampling Error	3	1	
Estimation of Single Population Parameter	3	1	
Confidence Interval Estimate for the Population Mean	9	3	
Introduction to Hypothesis Testing: ˝ÁHypothesis Testing for Means ˝ÁHypothesis Testing for a Proportion	3	1	
Midterm Exam		2	
Estimation and Hypothesis Testing for Two Population Parameter: ˝ÁHypothesis Testing for two population Means using Independent Samples	3	1	
Hypothesis Testing for paired Samples	3	1	
Hypothesis Testing: ˝ÁSingle Population Variance ˝ÁTwo Population Variance	3	1	
Analysis of Variance	3	1	
Simple Regression and Correlation	3	1	
Final Exam		1	

Teaching And Learning Methodologies :

Data show and computer in lectures
Presentations
Group discussion

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 and to assess understanding.
Final Exam	40.00	15	To assess knowledge and intellectual skills.
Midterm Exam(s)	30.00		To assess professional skills.

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