

Ministry of Higher Education and Scientific research



Department of Statistics

College of Administration and Economics

University of Salahaddin

Subject: Sampling Techniques

Course Book – Second stage (First course)

Lecturer's name: Qutnia M.Hamadameen -Lecturer

Academic Year: 2021-2022

Course Book

1. Course name	Sampling Techniques
2. Lecturer in charge	Qutnia Muhammed Hamadameen
3. Department/ College	Statistics/ Administration and Economics
4. Contact	e-mail: : qutnia.hamad@su.edu.krd
5. Time (in hours) per week	(6) hours
6. Office hours	(3 hours) during the week
7. Course code	STE101
8. Teacher's academic profile	I got a BSc degree from the college of Administration and Economics, department of Statistics in 1992, ranked very well. I designated (Research Assistant) at the same college in 12/12/1995. In 2002 I accepted in higher education - Masters, and I got an MSc degree in 2004. I worked as a lecturer assistant at the department of Statistics, and I taught the following subjects: Sampling Theorem, Time series, principles of statistics, Advanced statistics, Differential & Integration. During periods of teaching I supervised the researches of graduate students' fourth stage. I got a Scientific degree of Lecturer in 2013.
9. Keywords	Simple random sampling, Sampling fraction, Variance of the Estimates, Confidence limits, Estimation of a Rate, Sampling Proportions and percentages, Stratified random sampling, Optimum Allocation, Proportional Allocation, Ratio estimators, Systematic sampling, Clusters sampling.
10. Course overview:	Sampling Theorem is considered a topic in department of statistics, because at the beginning the student will get familiar with statistical sampling most of the researches are depending on this samples for analysing data. And rights since ancient times used the samples were keen traders on the

need to take a sample of the crop and the different products they buy to judge the quality of these goods as a whole, and turn most of the researchers at this time to conduct studies on the part of the community which aim to study the condition that represents this part of the truthful representation of society, and this part is what is called the sample and the researcher then circulate the conclusions of the sample of the community which pulls the sample from him. The study aims to provide the student with the basic principles of the samples and to understand and absorb the scientific basis of this science, where the study deals with different types of samples and different features of each type of samples and different things that relate to the size of the sample and the errors of sampling and confidence limits, and others.

11. Course objective:

The aim of any study to describe a society may be this community is a group of individuals or a group of variables or concepts or a set of phenomena and because of the difficulty of a study on the vocabulary of every community the researcher selected a group of individuals (samples) of this community.

12. Student's obligation

The attendance and completion of all tests, exams, assignments, reports.

13. Forms of teaching

Different forms of teaching will be used to reach the objectives of the course: data show PowerPoint presentations for the head titles and summary of conclusion, classification of material and any other illustrations. There will be classroom discussions and the lecture will give enough background to translate, solve, derive, and evaluate problems by using white board.

14. Assessment scheme

Grading: Grades will be assigned on a curve, using the following percentages: 5% report, 5% Quizzes and the presence and absence of students, 30% Exams, 60% Final and Pass: 50%.

15. Student learning outcome:

The clarity of the basic objectives of subject for students, namely;
They knew types of sample, Learned how to find simple random sampling, variance of the estimates, confidence limits, estimation of a Rate, variance of the sample proportion, determine the sample size in estimating the total,

determine the sample size to estimate the average community, determine the sample size to estimate the proportion.

16. Course Reading List and References:

- 1- الناصر والمرزوك، عبدالمجيد حمزة وعصرية ردام، " العينات"، 1989.
- 2- الناصر والصفراوي، عبدالمجيد حمزة و صفاء يونس، " العينات"، 2001.
- 3- طشطوش، سليمان محمد، " اساسيات المعاينة الاحصائية" 2001 الطبعة الاولى دار الشروق للنشر و التوزيع.
- 4- هرمز، امير حنا " مبادي الاحصاء " 1990 الطبعة الاولى، مطبعة جامعة الموصل.
- 5- William G. Cochran, Sampling Techniques. Third Edition, 1977.
- 6- www.stat-arab.com

17. The Topics:

Lecturer's name

<ul style="list-style-type: none"> • Sampling Techniques • Definitions and Terms. 	First week
<ul style="list-style-type: none"> • Probability Sampling. 	Second week
<ul style="list-style-type: none"> • Non Probability Sampling. 	Third week
<ul style="list-style-type: none"> • Value of the Bias • Mathematical expectation. 	Fourth week
<ul style="list-style-type: none"> • Simple random sampling. 	Fifth week
<ul style="list-style-type: none"> • Sampling fraction. 	Sixth week
<ul style="list-style-type: none"> • properties of the Estimates. 	Seventh week
<ul style="list-style-type: none"> • Applications. 	Eighth week
<ul style="list-style-type: none"> • Confidence limits 	Ninth week
<ul style="list-style-type: none"> • Estimation of a Rate 	Tenth week
<ul style="list-style-type: none"> • Confidence Interval of a Rate 	Eleven week
<ul style="list-style-type: none"> • Sampling Proportions and percentages. • Qualitative characteristics. 	Twelve week

<ul style="list-style-type: none"> • The Binomial Distribution. 	
<ul style="list-style-type: none"> • The Estimation of sample size. • determining the sample size to estimate the average community. 	Thirteenth week
<ul style="list-style-type: none"> • determine the sample size in estimating the total. • determine the sample size to estimate the proportion (p). 	Fourteenth week
<ul style="list-style-type: none"> • Mid-Term & Final Exam 	Fifteenth week

18. Practical Topics (If there is any)

There isn't any Practical Topics

19. Examinations:

1-

20. Extra notes:

There isn't any extra notes or comments

21. Peer review

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