



THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF POPULATION STUDIES

Course Name	RESEARCH AND STATISTICAL METHODS IN THE DEMOGRAPHY: PART I	
Course Code	DEM 2414	
PART I	RESEARCH METHODS IN DEMOGRAPHY	
AIM	To introduce students to basic methods of research.	
OBJECTIVES	By the end of the course, students will be able to do the following: <ul style="list-style-type: none">- To develop a fuller understanding of the different stages of the research process- To know how to write a research proposal-	
COURSE CONTENT		
Content	Topic	Lecturer
Topic 1	<u>Introduction to Social Research</u> The meaning and importance of research in the social sciences; characteristics of research; types of research; sources of knowledge; the scientific method; the research process in action; aims and goals of research; uses and abuses of research.	Dr. M. Lemba
Topic 2	<u>Introduction to Statistics</u> What statistics are; uses and limitations of statistics in social scientific research; essential steps in statistical analysis. Introduction to basic SPSS and EXCEL in data analysis.	Dr. M. Lemba
Topic 3	<u>Identification and Formulation of the Research Problems</u> Factors that influence the choice of a research topic; identification and definition of a problem; criteria for prioritization of a research problem.	Dr. M. Lemba
Topic 4	<u>Descriptive Statistics</u>	Dr. M. Lemba

	Organization of data; frequency distributions; cumulative and relative distributions; graphs of frequency distributions and ogives; bar charts and pie charts.	
Topic 5	<u>Literature review</u> Review of the literature; importance of literature review; sources of literature; strategy for finding sources; how to write literature review.	Dr. M. Lemba
Topic 6	<u>Measures of Central Tendency</u> The mean, median and mode; computation and selection of the appropriate measure of central tendency.	Dr. M. Lemba
Topic 7	<u>Statement of objectives and hypotheses</u> General and specific objectives; paradigms, models, theories and hypotheses; statement of the hypotheses; characteristics of a good hypotheses; identification of the variables.	Dr. M. Lemba
Topic 8	<u>Measures of Dispersion</u> The range, variance and standard deviation; the coefficient of variation.	Dr. M. Lemba
Topic 9	<u>Measurement</u> The concept of measurement; conceptual and operational definitions; indicators; types of indicators; scales of measurement.	Dr. M. Lemba
Topic 10	<u>Measures of Relative Standing</u> Percentile ranks and scores	Dr. M. Lemba
Topic 12	<u>Research Design</u> Description of research design; types of designs; choice of appropriate research design.	Dr. M. Lemba
Topic 13	<u>Basic Probability Theory</u> Definition of probability; types of probability; axioms of probability; uses and applications of probability.	Dr. M. Lemba

Topic 14	<p><u>Sampling</u></p> <p>Theory and practice of sampling; types of sampling designs; stages in the sampling process; choice of the appropriate sampling design.</p>	Dr. M. Lemba
Topic 15	<p><u>Introduction to inferential statistics</u></p> <p>The normal curve; uses and applications; standard scores; point estimates and interval estimates.</p>	Dr. M. Lemba
Topic 16	<p><u>Data Collection</u></p> <p>Sources of data-primary versus secondary sources of data; quantitative versus qualitative data.</p>	Dr. M. Lemba
Topic 17	<p><u>Hypothesis Testing</u></p> <p>Procedures in hypothesis testing; single sample tests involving means for large and small samples; two sample tests-difference between means.</p>	Dr. M. Lemba
Topic 18	<p><u>Construction of Research Instruments</u></p> <p>The questionnaire; types of questionnaires; questionnaires design; stages in questionnaire construction; pitfalls in questionnaire construction; the interview; editing of questionnaires.</p>	Dr. M. Lemba
Topic 19	<p><u>Simple Analysis of Variance</u></p> <p>The logic of ANOVA; one-way ANOVA; computational procedures, applications.</p>	Dr. M. Lemba
Topic 20	<p><u>Correlation Analysis</u></p> <p>Simple linear correlation; uses and applications; measures of correlation; product moment correlation; interpretation of correlation coefficients.</p>	Dr. M. Lemba
Topic 21	<p><u>Regression Analysis</u></p>	Dr. M. Lemba

	Linear regression; uses and application; computation procedures; interpretation of regression coefficients.	
Topic 22	<u>Introduction to Non-Parametric Tests</u> Rank-order correlation; Chi-square tests.	Dr. M. Lemba
TEACHING METHODS		
Lectures	3 hours of lectures per week	
Tutorials	1 hour of tutorials per week	
ASSESSMENT		
Continuous assessment	50%	
Examination	50%	
REQUIRED READINGS		
<u>REQUIRED TEXTS</u>		
Nachmias, C., and Nachmias, D. <u>Research Methods in the Social Sciences</u>		
Babbie, Earl R. <u>The Practice of Social Research.</u>		
RECOMMENDED READINGS		
Bless, C. and Achola, P.W. <u>Fundamentals of Social Research Methods - An African Approach.</u>		
TEACHING METHODS		
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Tutorials	1 hour of tutorials per week	
ASSESSMENT		
Continuous assessment	50%	
Examination	50%	
REQUIRED READINGS		
<ol style="list-style-type: none"> 1. Bless, Claire and Ravinder Kathuria. Fundamentals of Social Statistics: An African Perspective. (Cape Town: Juta and Company, 1993) 2. Bryman, Alan and Duncan Cramer. Quantitative Analysis for Social Scientists. (London: Routledge, 1992) 3. Ott, Lyman. An Introduction to Statistical Methods and Data Analysis. (North Scituate, Massachusetts: Duxbury Press, 1977) 		
RECOMMENDED READINGS		

1. Bowen, Bruce and Herbert F. Weiseberg. **An Introduction to Data Analysis.** (San Francisco: W. H. Freeman and Company, 1980)