INTRODUCTION

Class Number: 7355

COURSE

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PREREQUISITES:

Recommended: 30 units including a research methods course such as SA 255, CRIM 220, POL 260, or equivalent.

CALENDAR DESCRIPTION:

Descriptive and inferential statistics aimed at students in the social sciences. Scales of measurement. Descriptive statistics. Measures of association. Hypothesis tests and con idence intervals. Students in Sociology and Anthropology are expected to take SA 255 before this course. Intended to be particularly accessible to students who are not specializing in Statistics. Students cannot obtain credit for STAT 203 if they already have credit for - or are taking concurrently - STAT 101, 201, 205, 285, or any upper division STAT course. Quantitative.

COURSE DETAILS:

This course may be applied to the Certi icate in Liberal Arts

Outline:

This course covers Chapters 1-9, 11, 12, 15-22, and 24-27 of the textbook. Chapters 7, 11, 19, and 24 are section reviews (and thus are optional). Details of the other chapters are as follows:

1. **Descriptive Statistics (Chapters 1, 2, and 4 of text)** Basic graphical statistics (e.g. bar graphs, pie charts, histograms, time plots, stem-plots) and basic numerical statistics (e.g. mean, median, mode, quartiles, standard deviation, correlation) are discussed. Scales of measurement are distinguished (e.g. nominal, ordinal, ratio and interval).
2. **Probability (Chapters 3 and 12 of text)** The normal distribution is introduced along with probability rules.
3. **Sampling (Chapter 8 of text)** Various sampling designs such as simple random sampling are discussed. The implementation of sampling procedures is also presented.
4. **Experiments and Observational Studies (Chapters 8 and 9 of text)** The design of experiments is introduced with an emphasis on randomization, treatments, subjects, factors, pairing and controls. Comparisons are made with observational studies.
5. **Inference (Chapters 15, 16, 17, 18)** Concepts related to the construction of con idence intervals (e.g. sampling distributions, con idence level, width, interpretation, the e˜