STATISTICAL METHODS IN RESEARCH II

STA 6167 Syllabus

Prerequisites: Graduate Standing
Terms Offered: Fall and Spring

**Throughout the course students will be required to use SPSS for data analysis. Students will also be expected to be able to perform the calculations for the methods presented using a calculator as well.

REVIEW OF INFEERENCE FOR DISTRIBUTIONS (Sections 7.1)

Inference for the mean of a population: t-tests and matched pairs t-tests.

REVIEW OF INFEERENCE FOR COUNT DATA (Sections 8.1)

Inferences for a single proportion.

INFECTION FOR DISTRIBUTIONS (Section 7.2)

Inference for comparing two means using z tests and t tests for independent samples.

INFECTION FOR COUNT DATA (Section 8.2)

Inference for comparing two proportions

INFECTION FOR TWO-WAY TABLES (Sections 9.1 and 9.2)

Two -way tables; Chi-square test of independence.

INFECTION FOR REGRESSION (Sections 10.1, 10.2, and Chapter 11)

Inference procedures for the parameters of the simple linear regression model and of the multiple regression model.

Inference procedures for correlation.

ANALYSIS OF VARIANCE (Sections 12.1, 12.2, and Chapter 13)

One-way analysis of variance with contrasts and multiple comparisons. Two-way ANOVA with interaction.

ADDITIONAL TOPICS*

Randomized complete block design and additional inference procedures for correlation.

* These topics are optional. Since, the text does not include these topics, the instructor must provide appropriate handouts.