DEPARTMENT: Biostatistics and Bioinformatics

COURSE NUMBER: 550     SECTION NUMBER: 000     SEMESTER: Winter

CREDIT HOURS: 2

COURSE TITLE: Sampling Applications I

INSTRUCTOR NAME: Paul Weiss

INSTRUCTOR CONTACT INFORMATION

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SCHOOL ADDRESS OR MAILBOX LOCATION: GCR 308

OFFICE HOURS: Tuesdays 10-12 or by appointment

BRIEF COURSE DESCRIPTION

Focuses on how to select probability samples and analyze the data, using simple random sampling, stratified random sampling, cluster sampling, and multistage sampling. The software package PC-SUDAAN is used for data analysis.

LIST SCHOOL LEVEL, DEPARTMENT, AND/ OR PROGRAM COMPETENCIES

(School)
Use analytic reasoning and quantitative methods to address questions in public health and population-based research
Develop the capacity for lifelong learning in public health

(Department, All Programs in BIOS)
Use computer statistical software for both data management and data analyses

ACADEMIC HONOR CODE

The RSPH requires that all material submitted by a student in fulfilling his or her academic course of study must be the original work of the student.
LIST LEARNING OBJECTIVES ASSOCIATED WITH THE COMPETENCIES

BIOS 550 covers almost every area of statistical sampling and survey methods. Students in this class will master the concepts of complex sample designs and the effects of complex designs on estimation of population parameters. Students will also be introduced to non-sampling errors and development of sampling weights. Students will learn to analyze data from complex sample designs using various software packages which pervade public health research institutions world-wide (SAS, SUDAAN, WesVar PC). Public health studies almost always involve some complex sample design issues; this class prepares students to work in any field of public health research where such studies occur.

EVALUATION

Evaluation of students is based on graded homework sets, a midterm and final exam. Grades are assigned based on a straight scale (e.g. [96-100] = A, [91-96) = A-, etc.).