DEPARTMENT: Biostatistics and Bioinformatics

COURSE NUMBER: BIOS508       SECTION NUMBER: 000      SEMESTER: FALL
CREDIT HOURS: 2
COURSE TITLE: Introduction to Categorical Data Analysis

INSTRUCTOR NAME     Ying Guo

INSTRUCTOR CONTACT INFORMATION
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SCHOOL ADDRESS OR MAILBOX LOCATION: 1518 Clifton Rd NE Room 326, Atlanta, GA, 30322
OFFICE HOURS:        TA:      Tuesday 1-2 pm  GCR, Room 344
                    Instructor: Thursday 1-2 pm  GCR, Room 326

BRIEF COURSE DESCRIPTION
This course aims to develop understanding of statistical theories and methods related to categorical data. The main subject areas are distributions and inference for categorical data, analysis of contingency tables, large sample inferences and small sample inferences, logistic regression models. The course will equip students with computer skills for implementing these statistical methods using standard software including SAS and S-Plus.

LIST SCHOOL LEVEL, DEPARTMENT, AND/ OR PROGRAM COMPETENCIES

- Select and perform the appropriate statistical analyses of study data
- Use computer statistical software for both data management and data analyses
- Assist in the interpretation of study results
- Interpret and communicate statistical results of biomedical studies effectively
- Apply existing statistical theory and methods to a broad range of medical or public health problems
- Conduct of appropriate statistical analyses for a broad range of applications
- Communicate the results of statistical studies both orally and in writing to senior statisticians and other investigators
LIST LEARNING OBJECTIVES ASSOCIATED WITH THE COMPETENCIES

- This course aims to provide students the understanding of the theories and methods related to categorical data analysis so that students can select the appropriate methods for categorical data analysis.

- The course will equip students with computer skills for implementing these statistical methods using standard software including SAS and S-Plus.

- The course will train the students to appropriately interpret the results from the categorical data analysis.

- A project based on real life data will give students the opportunity to analyze categorical data and report the final results.

EVALUATION

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<td>Homework</td>
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<td>Project</td>
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<td>Final exam</td>
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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.