

STA4173, Introduction To Biostatistics

Instructor: Dr. Dan McGee (dmcgee@fsu.edu)
Grader: TBA (See Blackboard Page)
All contact Info on Blackboard (**Instructor Info tab**).

Prerequisites: A 3000 level course in statistics.

Course Materials: All course materials are online, see course Blackboard page for link.

Important Dates: The due dates for all homework as well as the dates of the midterm exams will be posted on Blackboard under the assignments content area on the course Blackboard page.

Textbook: There is no required text.

Some online resources are provided at the end of this document.

Accessing SAS Software: For this course we will use SAS On Demand for Academics. Students who have taken STA 5066, or STA 3024 should already have a SAS profile. All programming will be done using SAS Studio, a browser-based interface to the SAS cloud. To enroll in this course, just point your browser to the following line (your SAS profile is required):

<https://odamid.oda.sas.com/SASODAControlCenter/enroll.html?enroll=ba3c159c-253f-4a95-826c-a77d374ce345>

This "enrollment" allows access to course data. **Data presented in class and required for homework will be on the cloud.**

NOTE: Cloud maintenance is occasionally unavailable for part of the time on weekends. So **do not wait until the last day** to do homework assignments. "The cloud was unavailable," is not an acceptable reason for late submission.

Homework: All homework must be uploaded to Blackboard. **All homework materials must be assembled into a single file and this single file should be submitted** to the assignment posted on the course Blackboard page.

Homework Assignments may be discussed with other students (including using social media) but each student is required to write and assemble the requirements for the homework assignment on their own.

Questions about homework grades should be addressed to the course TA.

Homework Grading:

Late homework will be penalized 20% and no credit will be given for homework submitted more than one week after the due date.

Course Grade: The course grade will be based on homework (60%) and exams(40%).

Exams: I plan two (take-home) exams that you will have at least two weeks to complete. For the exams, no late submission will be allowed.

Course Objectives: Upon completion of this course students will be able to recognize the basic study designs use to study health in human populations. The student will also be able to select the correct statistical method for analyzing these data.

Course Description: This course provides an overview of biostatistical methods and study designs. We will cover as many of the following topics as time permits:

1. Measuring Disease Occurrence
 - a. U.S. Vital Statistics
 - b. Measures of disease occurrence
 - i. Prevalence
 - ii. Incidence
 - iii. Comparing Incidence and Prevalence among different groups.
 - c. Diagnostic testing
 - d. Life tables and life expectancy
2. Study Designs
 - a. Case series
 - b. Case-Control Studies
 - c. Cross-sectional Studies
 - d. Cohort studies
 - e. Clinical trials
3. Computer intensive methods
 - a. Randomization tests
 - b. Bootstrap
 - c. Simulation
4. Statistical Modeling in Biostatistics
 - a. Logistic Regression
 - b. Poisson Regression
 - c. Survival

Grading: The final course grade will be based on homework (60%), and tests (two midterms (20% each)). Letter grades are based on the following scale.

A	A-	B+	B	B-	C	D	F
95+	90-<95	85-<90	80-<85	75-<80	70-<75	<70	<60

Academic Honor Code: All students are expected to uphold the Academic Honor Code. The Academic Honor System of the Florida State University is based on the premise that each student has the responsibility to:

- Uphold the highest standard of academic integrity in the student's own work.
- Refuse to tolerate violations of academic integrity in the University community.
- Foster a high sense of integrity and social responsibility on the part of the University community.

Students with Disabilities: Students with disabilities needing academic accommodations should do the following during the first week of class:

- Register with and provide documentation to the Student Disability Resource Center.
- Bring a letter to the instructor from SDRC indicating that you need academic accommodations.

For more information about services available to FSU students with disabilities, contact the Assistant Dean of Students: sdrc@admin.fsu.edu, Disabled Student Services, 08 Kellum Hall, Florida State University, Tallahassee, FL 32306-4066, (850)644-9655.