

Course at a Glance Spring 2017

PHC 4069

Biostatistics in Society



Course Title:Biostatistics in Society

Course Number:PHC 4069

Dept: EPB

Credits: 3

Section 310 **Reference Number:** 88345 **Instructor:** Dr. Getachew Dagne gdagne@health.usf.edu

Course Description:

Biostatistics is a system for collecting, analyzing, and interpreting data. It is integral in our daily activities, especially in our endeavor to improve and promote health. This course is an introduction to Biostatistics with an emphasis on understanding the principle and processes of using data to reason. Real examples and real life datasets are used. Students will gain hand-on experiences in using Excel.

Format of content presentation, activities and/or instructional methods:

Online presentation. Lecture materials are posted weekly. Student evaluation will be based on weekly exercises, 10 assignments, and four exams. Each week there will be a virtual help session and virtual office hours. See course syllabus for detail. There is a discussion board open to the class to facilitate exchange outside of the classroom. In-person meeting with the TA and instructor may be requested when needed.

Course content organization:

Course content is organized by modules. See syllabus.

Textbook and Ordering materials:

Required Text:

Statistics: Concepts and Applications for Science (2013 Edition) by David C. LeBlanc (Available from HSC Bookstore)

How to Order:

Purchase your textbook online on the [HSC Bookstore website \(http://usfhsc.bncollege.com\)](http://usfhsc.bncollege.com)

Other Required Materials:

Additional materials will be distributed in class

Course learning objectives:

1. To understand the role of biostatistics in society;
2. To be able to recognize applications of simple biostatistics in our daily life;
3. To understand the principles of data/evidence gathering
4. To understand how to reason using data;
5. To be able to conduct simple data analyses using computer software;
6. To be able to interpret data through the results of analysis, including reading published health literature.

Course topics:

1. What are data and where do they come from?
2. How to display data in tables and graphs, and how to summarize data
3. Probability and applications: How to deal with randomness
4. Random variables and probability distributions
5. Sampling distributions for sample statistics
6. Hypothesis testing and Confidence Intervals
7. Testing Hypothesis for Proportions
8. Testing Hypothesis for Means
9. Correlation and Linear Regression

Types of assessments and activities in the course:

Students' performance will be evaluated on the basis of

1. Ten (10) homework assignments, each contribute 10 points to the total score. There is no time limit for each assignment. However, they must be completed in Canvas by the due date. Once submitted, assignment answers cannot be changed.
2. Four exams. The best 3 grades will each contribute 100 points to the final grade.
3. The syllabus quiz will contribute 25 points.

Course Expectations:

Students are expected to read class materials including lecture notes and the textbook, watch the recorded lectures, and complete assignments and exams. Course materials are built on the understanding of earlier topics and concepts. Assignments and exams will involve calculations either by hand or using MS Excel. Students should not assume that one can catch up after missing earlier parts of the course, nor should they assume that a few hours of work would be sufficient to achieve a passing grade. The students are strongly encouraged to participate in the help sessions, attend office hours, raise questions on the discussion board, and email TA and the instructor. The instructor and TA will help clarify issues arising from lecture notes, assignments, etc and help the students to understand the materials, but will not hand out answers to assignments. Grades will not be curved. No late submission of assignments or re-take of exams if one misses the deadline without approval in advance.

Required Dates to be Online:

No specific date other than exam dates.

For more information about the Course, Contact: Dr. Getachew Dagne (Instructor) gdagne@health.usf.edu

In particular,

- E-mails regarding help sessions, course contents, online 'real-time' group help sessions, assignments and syllabus quiz should directly be sent to the Graduate Teaching Assistants:
Hanze Zhang (hzhang1@health.usf.edu)
Shitaldas Pamnani (spamnani@health.usf.edu)
Ying Ma (yingma@health.usf.edu)
- E-mails regarding technical issues about Canvas and Blackboard Collaborator should be forwarded to Instructional/Multimedia Developer
Dr. Jung Lim (jlim2@health.usf.edu)
- E-mails regarding course administration, course contents, exams and Virtual office issues should be sent to Instructor
Dr. Getachew Dagne (gdagne@health.usf.edu).

Note: For problems accessing the course materials and other computer technical problems, click the **Tech Assistance** button in your course website and fill out a "Technical Problem Report Form". Tech Assistance button links to the Technical Assistance page of the Office of Educational Technology & Assessment website at: <http://health.usf.edu/publichealth/eta/techsupport.html>. Students can also receive assistance via telephone at 813-974-6666, Mon-Fri 8:30am-5pm, or via email at eta@health.usf.edu.

Technology Requirements (e.g. software and hardware):

Visit this website for software requirements and downloads:

http://health.usf.edu/publichealth/eta/students_tech_requirements.htm

Other technology requirements (hardware and software) specific for this course:

View hardware & software requirements and downloads for **Elluminate Live! sessions**

http://eta.health.usf.edu/technology/illuminate/Elluminate_Live10_sessions.pdf

To participate in the online group or individual help sessions you must meet ALL the computer requirements for Elluminate Live!

Note: These are in addition to the basic technology requirements for all CPH online courses.

Please Note: The information on this document is subject to change. The course instructor has the right to change any information posted in this document. Students should check the official course syllabus released during the first week of classes for any updates to this document.