COURSE SYLLABUS

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YEAR COURSE OFFERED: 2015

SEMESTER COURSE OFFERED: Fall

DEPARTMENT: Mathematics

COURSE NUMBER: 3339

NAME OF COURSE: Statistics for Sciences

NAME OF INSTRUCTOR: Rebecca George (http://www.math.uh.edu/~bekki/)

COURSE WEBPAGE: http://www.math.uh.edu/~bekki/Math3339.html

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The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.
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Learning Objectives

This is a first course in these topics so that you do not need any prior knowledge in these areas We will try to present everything in a self-contained way, but it might be very helpful to you to refresh your memory from Algebra and Calculus (eg. derivatives, integrals, infinite series). We cover Graphical and descriptive methods in statistics, probability, random variables and distributions, sampling, estimation, hypothesis testing, regression, analysis of variance, exploratory and diagnostic methods and statistical computing.

Major Assignments/Exams

COURSE GRADES: the course grade consists of:

> Online Quizzes – 10%
> Participation – 5%
> Homework (both EMCF and Written) – 15%
> Exams 1 & 2 – 20% each (total 40%)
> Comprehensive Final Exam – 30%

> **Note:** The percentage grade on the final exam can be used to replace your lowest test score.

> 90% and above - A
> at least 80% and below 90%- B
> at least 70% and below 80% - C
> at least 60% and below 70% - D
> below 60% - F

The instructor may change this at his/her discretion if doing so will benefit the class as a whole.

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Course Structure

Online Quizzes: Online quizzes will be given beginning the first week of the semester. Please check the calendar for due dates. You can attempt these quizzes up to 20 times each. The highest grade will be used for your score. You can access the quizzes by logging into CourseWare at http://www.casa.uh.edu .

Participation: The participation grade consists of attendance from online sessions and participation in the discussion board. If a student is unable to attend the online session during the live time, they must watch the posted video and answer the alternate assignment posted for that week. The alternate assignment is submitted on CourseWare under the Assignment tab before Sunday night at 11:59 pm.

Homework: Homework will be given in the form of both multiple choice and written assignments. The assignments will be linked from the course homepage and students will give their answers either by uploading written work or entering answers online (if multiple choice). All homeworks are due the following Monday night by 11:59 pm.

Exams: Proctored midterms and final exams will be given on campus in the CASA testing center. The final exam will be comprehensive. If you are in the online section and live more than 100 miles from campus, you may ask for permission to have your exams proctored at a location in your area. For more information see http://www.uh.edu/distance/student-resources/proctoring/ Exams for the fall 2015 semester will be given on the following dates:

  Exam 1: Oct 1 – 3
  Exam 2: Nov 12 – 14
  Final Exam: Dec 12 – 13

Required Reading

The departmental text will be available online through Courseware. You must purchase an Access Code from the UH Bookstore.

List of discussion/lecture topics

Chapter 1: Background
Chapter 2: Descriptive and Graphical Statistics
Chapter 3: Probability
Chapter 4: Discrete Distributions
Chapter 5: Continuous Distributions
Chapter 6: Joint Distributions and Sampling Distributions
Chapter 7: Statistical Inference for a Single Population
Chapter 8: Regression and Correlation
Chapter 9: Inference from Multiple Samples
Chapter 10: The Analysis of Categorical Data