Math 206: Data Analysis  
Spring 2017  
311 Hayes Hall  
MWF 10:10 – 11:00am

Professor: Marie Snipes  
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Office Hours: M 11am-noon, T 2-4pm, Th 1-3pm, and by appointment


Software: R-Studio

Content: In Math 206, students will solidify their understanding of basic statistical topics, and will learn more advanced techniques for data analysis. This course will increase students' fluency in applying statistics to real-world problems. Data will be analyzed using the software package R-Studio. The class will culminate with a written data analysis of a current topic that students will choose. Statistical techniques include

- Simple and Multiple Linear Regression
- Bootstrapping
- Analysis of Variance for one factor and for many factors
- Simple and Multiple Logistic Regression

Course Web Page:  
http://www2.kenyon.edu/Depts/Math/Snipes/Math206/index.html

Grading Policy:  
Homework 15%  
Participation and Quizzes 14%  
Gateway 8%  
First Midterm 20%  
Second Midterm 20%  
Projects 23%

Key Dates:  
First Midterm Friday, Feb. 24 (in class)  
Second Midterm Friday, Apr. 28 (in class)  
Final Project due Thursday, May 11 (8:30am)

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**Homework:** Homework will be collected approximately weekly (occasionally twice in a week). **Homework is due at the beginning of class on the due date. Late homework will not be accepted.** Assignments MUST be stapled, legible, and clearly organized with explanations in complete sentences where appropriate. Student collaborators MUST also be listed for each assignment (see Academic Honesty below). The lowest assignment score will be dropped.

**Quizzes and Class participation:** Periodic quizzes (15-20 minutes in length) will be given to provide students a chance to assess their knowledge in a low-stakes, timed setting. This will help solidify your understanding and prepare for exams. Attendance and active participation in all classes will also be counted in this portion of the grade.

**Projects:** The course includes two short writing projects and a final project in which students find a dataset of interest and perform appropriate analysis – involving course techniques – to answer a question of interest to them. The projects will provide opportunities for students to explain statistical concepts in writing, and to apply classroom knowledge to real-life situations and datasets. The projects will be evaluated for both mathematical content and quality of exposition. The final project will be due at 8:30am Thursday, May 11. More information about the writing projects will be provided later in the semester.

**Academic Honesty:** Please refer to the Academic Honesty and Questions of Plagiarism section of the Course Catalog for general college policies that apply.

For this class, I encourage you to work with other students on outside assignments. However, every piece of written or computer-generated work that you submit must be your own. Further, students who work with or receive help from other students MUST include attributions in their assignments. Finally, on group assignments all group members should contribute equally to the final product—putting a member’s name on a paper written by others constitutes a breach in academic honesty. If you are uncertain about the expectations for academic honesty in this class, please ask for clarification.

**Special Arrangements:** If you have a physical, psychological, or learning disability that may impact your ability to participate fully in this class, please consult the Coordinator of Disability Services, Erin Salva (salvae@kenyon.edu, x5453). All information and documentation of disability is confidential. Please feel free to discuss any concerns with me, but keep in mind that I cannot make any special accommodations without authorization from Ms. Salva.