Instructor:	Dr. Dorian J. Burnette	**Office Hours**
Office:	230, Johnson Hall	10-11 a.m. Mon-Wed
Phone:	901-678-4452	and by appointment
E-Mail:	djbrntte@memphis.edu	
Website:	www.djburnette.com	

I encourage you to talk to me individually whenever you need to discuss your progress in the course or whenever you have a topic of special interest you want to discuss individually.

COURSE WEBSITE

elearn.memphis.edu (eCourseware)

COURSE TEXTBOOK

Required: *Geographic Measurement and Quantitative Analysis*, by Earickson and Harlin.

Optional (SAS): *Learning SAS in the Computer Lab*, 2nd Edition or later, by Elliott

Optional (R): *Introductory Statistics with R*, 2nd Edition, by Dalgaard

ABOUT THE COURSE

An introduction to the quantitative methods used by geographers. We will discuss the nature of geographic datasets, ways in which numerical data may be presented, and statistical measures, tests, and modeling. This course is not about how to derive or solve equations. Instead, it is a combination of lecture and exercises with an emphasis on application. Students will gain experience with statistical scripting languages, specifically SAS and R, to apply quantitative methods to the broad field of geography.

GRADES

Your grade at the end of the semester will be determined based on your scores on 1) the mid-term and final exams, 2) ten exercises, 3) a presentation, and 4) peer-reviews of the graduate student presentations at the end of the semester. Final grades will be determined from a total of 550 points:

Grade	Points Needed	Average Percentage
A	495	90%
B	440	80%
C	385	70%
D	330	60%

Exams:
Two exams are scheduled for this course—a mid-term and a final. Each exam is worth 100 points, and will consist of an in-class portion and a take-home portion. The take-home portion of the mid-term exam will be assigned on the exam day, and will be due two weeks later.

The take-home portion of the final exam will be distributed on 29 November 2017, and due on the day of the final exam, 13 December 2017.

The in-class portion of the exams can be made up, but you must have a legitimate, verifiable, and an unavoidable reason. If you know you are going to be absent, then please make arrangements for a makeup before the exam. If you miss an exam because of an unforeseen emergency, arrangements to make it up must be made as soon as you return to campus. Please note that while makeup exams will be in the same format and cover the same material, they may not ask the same questions. The last day to makeup an exam is Study Day, 7 December 2017.

Exercises:

There will be 10 exercises worth 20 points each, and are due at the beginning of class on the date listed. You may work on these exercises in groups if you wish, but each student must turn in their own set of answers.

It is better to hand in exercises late than not at all. Any exercises turned in late, however, are subject to a grade penalty. The later an exercise is, the more stiff the penalty. For each class period that an exercise is late, 10% of the maximum points will be subtracted. Please note, the last day to turn in late exercises is Study Day, 7 December 2017.

Presentation:

In order to receive graduate credit for this course, you will analyze a dataset of your choice and give a PowerPoint presentation at the end of the semester. In your presentation, please be sure to include a brief description of your data and their source, explain why you chose your method of analysis, interpret your results, and make a conclusion. The presentation should last about 12 minutes and allow 3 minutes for questions from the audience. A sign-up sheet will be distributed on 25 October 2017, so you will know when you are scheduled to give your presentation. The presentation is worth 100 points.

Peer-Review of Graduate Student Presentations:

Each student is required to write a short review of each graduate student presentation at the end of the semester, which must include a positive comment and a constructive criticism. These reviews should focus on the appropriateness of the data analysis methods used and whether those methods support the conclusions. Completing these reviews for all graduate students is worth 50 points.

Attendance:

I will not call roll. I am assuming that you can make your own decisions about class attendance and how it might influence your performance. However, it is in your own best interest to attend class for a couple of reasons. First, this is a 4000/6000-level course and class lectures will likely go beyond the textbook at times to include new material from the peer-reviewed literature. Second, I will memorize your names and faces and will know who comes to class regularly. I may use such information to give the benefit of doubt to borderline grade situations. My experience has shown students who miss a number of days, do not perform as well on exams as they could have had they attended class.

STUDENT CONDUCT

Academic Dishonesty:

Cheating, plagiarism, or any other form of academic dishonesty will not be tolerated. Cases of academic dishonesty will be dealt with in accordance with the policies set forth in the University's Code of Student Rights and Responsibilities available at

http://www.memphis.edu/studentconduct/pdfs/csrr.pdf. It is your responsibility to understand these policies. A lack of understanding is not an adequate defense against a charge of academic dishonesty.

Cell Phones, Laptops, Tablets:
The use of cell phones, laptops, or tablet computers for purposes other than note taking is not allowed during class. Flagrant violation of this policy will result in you being dismissed from class.

STUDENTS WITH DISABILITIES

Any student who may need class or test accommodation based on the impact of a disability will need to contact Student Disability Services (SDS) at 110 Wilder Tower, 678-2880. SDS coordinates accommodations for students with documented disabilities. Once you receive your documentation from SDS, you are encouraged to schedule a meeting with me to provide me with the paperwork and discuss any accommodations needed for examinations and class materials.

COURSE SCHEDULE

Note: There is always a chance that this schedule could change. Any changes will be announced in class and updated in this syllabus on the course website.

Date	Topic	Chapter
28 August	Introduction, Science, Statistics, Nature of Datasets	1
30 August	Measurement and Sampling Part 1	2
4 September	No Class – Labor Day	
6 September	Exercise 1: An Introduction to SAS and R	
11 September	Measurement and Sampling Part 2	2
13 September	Exercise 2: Importing and Exporting Data	
18 September	Graphing and Mapping Data	3
20 September	Exercise 3: Creating Figures that Communicate	
25 September	Descriptive Statistics	4
27 September	Exercise 4: Descriptive Statistics	
2 October	Probability and Probability Distributions	5
4 October	Exercise 5: Probability Distributions	
9 October	Review for Mid-Term Exam	

11 October	*Mid-Term Exam*	
16 October	No Class – Fall Break	
18 October	Inferential Statistics and Hypotheses Involving Means	6
23 October	Exercise 6: Hypothesis Testing	
25 October	One-Way Analysis of Variance	7
30 October	Exercise 7: Analysis of Variance	
1 November	Bivariate Correlation and Linear Regression	8
6 November	Exercise 8: Correlation and Regression	
8 November	Nonparametric Statistics	9
13 November	Exercise 9: Nonparametric Statistics	
15 November	Introduction to Multivariate Analyses	Lecture
20 November	Exercise 10: Introduction to Multivariate Analyses	
22 November	No Class – Thanksgiving Break	
27 November	Graduate Student Presentations	
29 November	Graduate Student Presentations	
4 December	Graduate Student Presentations	
6 December	Review for Final	
13 December (10 a.m.-12 p.m.)	*Final Exam*	

*Note: 7 December 2017 is the last day to makeup missed exams and turn in late exercises