PMAP 8131: Applied Research Methods and Statistics II
Spring 2018

CRN: 21524
Class Time: T 7:15p – 9:45p
Location: Classroom South 210
Instructor: Jonathan R. Boyd
E-mail: jboyd12@gsu.edu
Office: AYSPS 352
Office Phone: (404)413-0122
Office Hours: TW 2:30p – 3:30p (other times easily by appointment)

Course Objectives:

Regression
Students are expected to do the following by the end of the course:
1. Run basic statistical analysis using SPSS software.
2. Use scatterplots and correlation coefficients to show the direction and strength of relationships between interval-level variables.
3. Interpret regression coefficients on interval-level and dummy independent variables in both bivariate and multiple regression.
4. Explain clearly what it means to hold a variable constant.
5. Discuss the strength of relationships using unstandardized regression coefficients, standardized regression coefficients (beta-weights), and the coefficient of determination (R2).
6. Graph hypotheses about causal relationships among variables.
7. Distinguish between antecedent and intervening variables, models of explanation and interpretation, and spurious and indirect effects.
8. Determine when (and to what extent) we can generalize a relationship from a sample to the population from which the sample was drawn, using both hypothesis tests and confidence intervals.

Research Design
Students are expected to do the following by the end of the course:
1. Pose research questions.
2. Distinguish between idiographic and nomothetic explanations, deductive and inductive approaches, and quantitative and qualitative methods.
3. Develop hypotheses and operationalize variables.
4. Identify key ethical challenges likely to confront researchers and key ethical principles used to address them.
5. Identify the key advantages and disadvantages of experimental, survey, and qualitative research.
6. Identify special problems faced by evaluation researchers in conducting policy-relevant research in real-world contexts.
Course Description:
This course covers advanced methods and statistics in applied research. Topics include survey research, experimental and quasi-experimental designs, sampling, and intermediate statistical techniques including correlation and regression analysis. Ethics of applied research in public administration and urban policy are also examined.

Readings:
For the material on research design, we will be using one textbook:

Older or newer editions of the textbook should also be acceptable, but you are responsible for supplementing your edition if necessary. Additional readings will be provided via iCollege.

For the material on regression analysis, there is no traditional textbook. Instead, the text is a set of lecture notes posted on iCollege. If you’d like additional resources, I can recommend supplementary texts.

Software:
This course uses the SPSS statistical software. SPSS is available in most GSU computer labs. You can also access SPSS remotely from an off-campus computer through the GSU Virtual Computer Lab, but know that many students find this experience frustrating. Instructions to access are here: http://technology.gsu.edu/technology-services/it-services/labs-and-classrooms/virtual-computing/.

Purchasing SPSS is NOT required, but many of you may find that it is more convenient to buy the student version of SPSS, which costs about $100. Graduate research assistants can apparently get a discount on the software from IS&T. You can also lease SPSS (you want to pick SPSS Statistics Base GradPack) for 6 months for about $40 (or about $60 for 12 months). This is probably the cheapest option, but keep in mind that if you'll be taking PMAP 8131 you'll likely be using SPSS there too (and possibly even in PMAP 8521). The amount of out-of-class SPSS work there will probably vary by instructor though. Here are vendor options IBM recommends (you can probably find more): http://www-03.ibm.com/software/products/en/spss-stats-gradpack.

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework and Quizzes</td>
<td>15%</td>
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<tr>
<td>Midterm examination</td>
<td>30%</td>
</tr>
<tr>
<td>Research paper</td>
<td>25%</td>
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<tr>
<td>Final examination</td>
<td>30%</td>
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-Homework
Homework assignments will be completed over the semester, usually every week. These will cover the content from the previous class and will usually require the use of SPSS. The homework will usually require several hours. I strongly

-Quizzes
Quizzes will be given over the semester, usually every week. Quizzes will be based on material from the previous week. If you've done the homework, you should be prepared for the quiz. Quizzes will be during the first 10 minutes of class. Missing a quiz will result in a zero; there will be no makeup quizzes.

-Exams
Exams will be in-class. The homework assignments and the quizzes will prepare you for the exams. Missing an exam will result in a zero unless evidence of a university excused absence is provided before the exam. Note that the final exam is scheduled to begin at 7:00 pm.

-Paper
For the paper, you will select your own topic and use the tools from class to answer research questions. More information about the paper will be presented in class and available on the course site.

Final Grading Scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
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<tbody>
<tr>
<td>A</td>
<td>&gt;92.99</td>
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<tr>
<td>A-</td>
<td>90.00-92.99</td>
</tr>
<tr>
<td>B+</td>
<td>87.00-89.99</td>
</tr>
<tr>
<td>B</td>
<td>83.00-86.99</td>
</tr>
<tr>
<td>B-</td>
<td>80.00-82.99</td>
</tr>
<tr>
<td>C+</td>
<td>77.00-79.99</td>
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<tr>
<td>C</td>
<td>73.00-76.99</td>
</tr>
<tr>
<td>C-</td>
<td>70.00-72.99</td>
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<tr>
<td>D</td>
<td>60.00-69.99</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60.00</td>
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Attendance:
Attendance is essential to succeed in this course. I expect you to attend every class, even though attendance is not strictly required. Each class builds on the prior one, so students who fall behind usually find it very hard to catch up. Absences will also adversely affect grades due to missed quizzes. Students are responsible for obtaining any class information missed if absent.
Respect:
Cell phones should be off before class begins. Treat your colleagues and the instructor with respect, sensitivity, and openness to new ideas. Distractive practices, such as tardy entrances, leaving the room while class is in session, ringing and vibrating cell phones, excessively conversing with other students, leaving to get food, eating food, and conducting activities unrelated to class discussions are considered inappropriate behavior.

Email:
I will occasionally send class updates and information via GSU email. Students are expected to regularly check accounts for course information. Email is also the best way to reach me. Send email to my GSU address (not via iCollege) and I will respond within two business days.

Academic Honesty:
GSU guidelines on academic honesty will be enforced in this course, and students should be familiar with the GSU Policy on Academic Honesty posted online in section 409 in the Faculty Handbook (http://www2.gsu.edu/~wwwfhb/sec400.html#409). It is your responsibility to ask questions if you are unclear about what is appropriate. Academic dishonesty violations can result in a penalty of a ‘0’ on the assignment or test, class failure, and expulsion from Georgia State University.

Accommodation:
Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought.

Course Evaluations:
Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take time to fill out the online course evaluation.

Basic Needs Security:
Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Embark Network at Georgia State University. Additionally, please notify me if comfortable doing so. The Embark Network provides assistance to students experiencing homelessness or the foster care system. This network, run through the Dean of Students Office, connects
students to on and off campus resources for assistance with food insecurity, housing, and other services. More information can be found by calling the Dean of Students office at (404)413-1515 or going to the website: [http://deanofstudents.gsu.edu/student-assistance/embark/](http://deanofstudents.gsu.edu/student-assistance/embark/).

**Course Schedule:**
This syllabus provides a general plan for this course; deviations may be necessary.

| Class 1 | Introduction, Correlations, & Bivariate Regression  
| 01/09 | Read Lecture Notes 1 & 2 BEFORE class.  
| 01/12 | Last day to add/drop course (by 5 pm)  

| Class 2 | Multiple Regression  
| 01/16 | Read Lecture Notes 3; computer assignment 2 due  

| Class 3 | Relationship Strength and Regression  
| 01/23 | Read Lecture Notes 4 & Babbie Ch 1; computer assignment 3 due  

| Class 4 | Causal Models  
| 01/30 | Read Lecture Notes 5; computer assignment 4 due  

| Class 5 | Research Design; Review  
| 02/06 | Read Babbie ch 2; computer assignment 5 due  

| Class 6 | Midterm Exam  
| 02/13 |  

| Class 7 | Hypothesis Tests  
| 02/20 | Read Lecture Notes 6; RD assignment 1 due  
| 02/27 | Last day to withdraw from course  

| Class 8 | Confidence Intervals  
| 02/27 | Read Lecture Notes 7; computer assignment 6 due  

| Class 9 | Sampling  
| 03/06 | Read Babbie ch 7; computer assignment 7 due  
| 03/13 | No Class: Spring Break  

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<thead>
<tr>
<th>Class</th>
<th>Topic</th>
<th>Date</th>
<th>Task</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>Conceptualization, Operationalization, and Measurement</td>
<td>03/20</td>
<td>Read Babbie ch 5; RD assignment 2 due</td>
</tr>
<tr>
<td>11</td>
<td>Experiments</td>
<td>03/27</td>
<td>Read Babbie ch 8; RD assignment 3 due</td>
</tr>
<tr>
<td>12</td>
<td>Surveys &amp; Ethics</td>
<td>04/03</td>
<td>Read Babbie chs 9 &amp; 3; RD assignment 4 due</td>
</tr>
<tr>
<td>13</td>
<td>Qualitative Field &amp; Unobtrusive Research</td>
<td>04/10</td>
<td>Read Babbie chs 10 &amp; 11; RD assignment 5 due</td>
</tr>
<tr>
<td>14</td>
<td>Evaluation, Catch Up, &amp; Review</td>
<td>04/17</td>
<td>Read Babbie ch 12; RD assignment 6 due</td>
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<td>04/24</td>
<td>No Class; RD assignment 7 due Paper Due</td>
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<tr>
<td>15</td>
<td>Final Exam (from 7:00 pm until 9:30 pm)</td>
<td>05/01</td>
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