ECON 220-002: PROBABILITY AND STATISTICS FOR ECONOMISTS
Department of Economics, Emory University
Spring 2017

Instructor: Dr. Kaushik Mukhopadhyaya
Office: Rich 311A Phone: 404-712-8688 E-mail: kmukhop@emory.edu

Class Meeting: Every Monday, Wednesday, and Friday, 11:00a.m.-11:50a.m., MSC E208
Office Hours: Every Monday, Wednesday, and Friday, 2:00p.m.-3:00p.m., Rich 311A,
or by appointment

General Expectation
This course will provide a solid foundation in probability and statistics for economics and other social science majors. Topics include probability theory, expectations, special types of distributions, sampling theory, estimation, hypothesis testing, and simple regression. You will be expected to: (1) recognize and define statistical concepts as used in economics and business, (2) apply those concepts to situations, cases, and problems requiring a decision based on quantitative information, (3) describe and communicate inferences drawn from your knowledge of statistics, and (4) carry out some data management and calculations using handheld calculator (and occasionally using Microsoft Excel). Economics 101 and Mathematics 111 are the prerequisites for this course.

Required Materials
• MyStatLab Access Card Package
• A scientific calculator

Class Participation, Exams, and Grading Policy
Participation in each class session is essential for you to obtain the full benefit from the course. The class meetings will rely on discussion, group work, and other activities that require direct physical presence in the classroom. For each class that you miss 5% of your participation grade will be deducted. You may miss three classes over the semester without penalty. However, tardiness will not be tolerated because it disrupts other students from learning.

There will be two exams (one midterm and a final) and random participation measurements taken in the lecture hall. There will be weekly homework assignments (which may use the spreadsheet Excel), that needs to be completed in MyStatLab. Assignments must be completed on time, so that they can be graded automatically in MyStatLab. No credit for late assignments. The final exam will be comprehensive.

There will be no make-ups on exams or other assignments. If you have an excused absence with prior approval from me and miss the midterm exam, the weight of the missed exam will be placed on the comprehensive final. Under no circumstances will you be allowed to miss more than one exam, and you must take the final.
Your numerical course grade will be determined according to the following weights:

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<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Details</th>
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<tbody>
<tr>
<td>Participation</td>
<td>20%</td>
<td>Random participation measurements</td>
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<tr>
<td>Assignments</td>
<td>10%</td>
<td>Weekly homework assignments in MyStatLab</td>
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<tr>
<td>Midterm Exam</td>
<td>30%</td>
<td>Friday, March 3, 11:00a.m.-11:50a.m.</td>
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<td>Final Exam</td>
<td>40%</td>
<td>Tuesday, May 2, 8:00a.m.-10:30a.m.</td>
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<td>Total</td>
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Grades will be assigned on the basis of relative performance, but anyone earning over 90, 80 or 60 percent of the points will be assured respectively of an A, B or C range letter grade.

**Miscellaneous**

“The honor code is in effect throughout the semester. By taking this course, you affirm that it is a violation of the code to cheat on exams, to plagiarize, to deviate from the teacher’s instructions about collaboration on work that is submitted for grades, to give false information to a faculty member, and to undertake any other form of academic misconduct. You agree that the teacher is entitled to move you to another seat during examinations, without explanation. You also affirm that if you witness others violating the code you have a duty to report them to the honor council.”

If you require accommodations for a disability, religious belief, scheduling conflict, or other impairment that might affect your successful completion of this course, you must personally present the request in written (signed and dated) form to me within the first four meetings. Requests for special accommodations made after that will not be considered.

As a final note, I want to wish all of you good luck in this course and I encourage you to see me if you are having difficulty with the course material or need to discuss something with me. You can stop by my office during office hours, or schedule an appointment. I can also be reached through e-mail or voice mail. Please do not hesitate to see me if you have any questions or concerns.

**Course Outline and Tentative Timetable**

Keep in mind that although I have given you a course outline, I reserve the right to make what I consider reasonable adjustments to it.

1. **Weeks 1-2 (January 11-January 20)**
   - Describing Data: Graphical 1.1-1.6
   - Describing Data: Numerical 2.1-2.4

2. **Weeks 3-5 (January 23-February 10)**
   - Probability 3.1-3.5
   - Discrete Random Variables and Probability Distributions 4.1-4.7

3. **Weeks 6-8 (February 13-March 1)**
   - Continuous Random Variables and Probability Distributions 5.1-5.6
   - Sampling and Sampling Distributions 6.1-6.4
Midterm Exam: Friday, 11:00a.m. - 11:50a.m., March 3, 2017

4. Weeks 9-10 (March 13-March 24)
   Estimation: Single Population 7.1-7.8
   Estimation: Additional Topics 8.1-8.3

5. Weeks 11-13 (March 27-April 14)
   Hypothesis Testing: Additional Topics 10.1-10.5

   Simple Linear Regression (time permitting) 11.1-11.9

Final Exam: Tuesday, 8:00a.m. - 10:30a.m., May 2, 2017