Boston College Department of Economics

EC151.06  
Statistics for Business and Economics  
Spring 2012  
MWF 12-12:50  
Fulton 220

Michael Smith  
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Email: smithaal@bc.edu  
Office Hours: MW 2-3pm

Text: Statistics for Business and Economics (BC 2nd custom edition), Newbold, Carlson, Thorne

Course Description:

This is an introductory course in Statistics, specifically geared towards students in the fields of Economics and Business.

Statistics, roughly speaking, is a science focused on collecting, analyzing and interpreting data. As such, Statistics involves detailed methodology and organized techniques that you should be familiar with by the end of this course. The basic topics covered include probability theory, random variables, sampling distributions, parameter estimation, hypothesis test, and simple linear regression. You will not be a statistician by the end of this course, but you will have an appreciation of the power as well as the limitations of statistical thinking. Statistics will be interesting some of you, and perhaps not as interesting to others, but the skills you learn in this course will be invaluable in your future.

This is a mathematical based course. No previous mathematical knowledge after pre-calculus is required: however additional mathematical maturity is always helpful. Class attendance is necessary in order to learn the material in the course. I will not take attendance but I urge you to attend all lectures.

Course Grading:

The course will consist of problem sets, two midterms and a final exam. The grading will be as follows:

1) Four problem sets: 20%
2) Two midterms exams: 20% each
3) Final Exam: 40%
You are encouraged to work on problem sets in groups but each individual must submit their own problem set. Problem sets and exams will be graded on the same scale.

Exams will be closed book. However, you may prepare a “cheat sheet” (double-sided, 8.5x11 paper) with formulas or other aids and bring it to each exam. You are not permitted to work with other students during the exams.

In principle, I will NOT offer make-up exams. Any extreme cases will be handled on a case-by-case basis, and if notified ahead of time, I will try to schedule a make-up exam.

Grade Equivalents:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A=93 or above</td>
<td>93 or above</td>
</tr>
<tr>
<td>A-=92-90</td>
<td>80-77</td>
</tr>
<tr>
<td>B+=89-86</td>
<td>76-74</td>
</tr>
<tr>
<td>B=85-81</td>
<td>73-69</td>
</tr>
<tr>
<td>C+=76</td>
<td>64-62</td>
</tr>
<tr>
<td>C=73-69</td>
<td>61-57</td>
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<tr>
<td>D+=64-62</td>
<td>56-54</td>
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<tr>
<td>D=61-57</td>
<td>56-54</td>
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<tr>
<td>F=54 and under</td>
<td>54 and under</td>
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Academic Integrity:

I urge you all to please familiarize yourselves with the “Academic Integrity” section of the Boston College Catalog (35-36), or online at www.bc.edu/integrity.

Learning Services:

If you have a disability and will be requesting accommodations for this course, please register with either Kathy Duggan (Kathleen.duggan@bc.edu), Associate Director, Academic Support Services; the Connors Family Learning Center (learning disabilities and ADHD) or Paulette Durrett (paulette.durrett@bc.edu) Assistant Dean for Students with Disabilities. I will be happy to accommodate your needs, but require advance notice and appropriate documentation.

Course Topics:

Descriptive Statistics
Probability Theory, Bayes’ Theorem
Probability Distributions: Discrete
Probability Distributions: Continuous

Midterm Exam I: Friday Feb. 24 at noon

Sampling, Confidence Intervals, Sample Size, Proportions, t distribution
Hypothesis Testing (Single Population)

Midterm Exam II: Friday Mar. 30 at noon
Hypothesis Testing (Two population parameters)
Chi-Square Distribution, ANOVA
Simple Regression

Final Exam: Wednesday, May 9th at 9:00 am