ECONOMICS 3402–02
STATISTICS FOR BUSINESS AND ECONOMICS
Spring 2002

INSTRUCTOR: Dr. Swarna (Bashu) Dutt
e-mail: bdutt@westga.edu

Location: Richards College of Business, Room #47
Class Location: Business 123
Class Time: M, W: 5.30 – 6.45 PM
Office Hours: M, W: 9.00 – 2.00, 4.45 – 5.30 PM
Phone: 770-836-6477

TEXTBOOK: CONTEMPORARY BUSINESS STATISTICS BY: DAVID R. ANDERSON, DENNIS J. SWEENEY AND THOMAS A. WILLIAMS.
PUBLISHED BY: SOUTH WESTERN PUBLISHING COMPANY, 2001

COURSE OUTLINE:

CHAPTERS: 1 – 9 and 12. This is an introductory course in statistics. A brief tentative outline of the relevant topics is:

Frequency distribution,
Mean, Median, Mode,
Measures of Dispersion,
Standard Deviation,
Probability, Discrete and Continuous Random variables,
Sampling distribution,
Point and Interval estimation,
Hypothesis testing
Linear / multiple regression
Expected Learning Outcomes

• Students will obtain an overview of the role of statistics with regard to decision-making in business. (LO 1, LO 3).

• Students will be able to recognize different types of data and learn the appropriate use of tabular and graphical methods of presenting qualitative and quantitative data. (LO 1, LO 3).

• Students will be able to construct, interpret, and use numerical measures of location and variability for the sample and the population. (LO 1, LO 3, LO 5, LO 11)

• Students will develop an understanding of basic probability concepts and their use in decision-making. (LO 5).

• Students will be able to apply the concepts of expected value and variance to a variety of business applications including insurance and investment analysis. (LO 5).

• Students will differentiate between discrete and continuous probability distributions and become proficient at determining probabilities using the normal probability distribution. (LO 5).

• Students will be able to demonstrate an understanding of the concept of sampling distributions and relate the role of the central limit theorem in making statistical inferences. (LO 5).

• Students will develop an understanding of the rationale behind interval estimation and be able to construct and interpret interval estimates. (LO 1, LO 5).

• Students will recognize factors influencing required sample size and be able to determine the required sample size for constructing interval estimates. (LO 5).

• Students will be able to use hypothesis testing to evaluate claims about the population, to test research hypotheses, and as an aid in decision-making in business. (LO 5).

• Students will be able to estimate regression models, evaluate the results of regression models, and use the results for prediction and forecasting. (LO 5).

• Students will be able to use correlation analysis to determine type and strength of relationship between variables. (LO 3, LO 5).
EXAMINATION SCHEDULE:

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
<th>Points</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>Jan 28, 2002</td>
<td>40</td>
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<tr>
<td>Exam 2</td>
<td>Feb. 18, 2002</td>
<td>40</td>
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<tr>
<td>Exam 3</td>
<td>March 6, 2002</td>
<td>40</td>
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<tr>
<td>Exam 4</td>
<td>April 1, 2002</td>
<td>40</td>
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<tr>
<td>Final</td>
<td>May 6, 2002, 5.30 – 7.30 pm</td>
<td>70</td>
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ASSESSMENT:

I will conduct regression analysis sessions in our computer lab and there will be a lab exam worth 20 points. The practice sessions and the exam dates for this will be announced in class. Your class attendance is extremely important.

You will be graded out of a total of 250 points. The exams will be held during class time on the date(s) mentioned. The exams are all comprehensive including the final. The exams are a combination of theoretical (essay type) and numerical (number crunching) questions.

There are ABSOLUTELY no make up exams or quizzes. There are no alternative ways to earn credits (class project / term papers etc.) Concentrate on the exams. You can call on me during the office hours and / or anytime by making an appointment.

ASSESSMENT POLICY:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>90 - 100 %</td>
<td>225 - 250</td>
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<tr>
<td>B</td>
<td>80 - 89.9 %</td>
<td>200 - 224</td>
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<tr>
<td>C</td>
<td>70 - 79.9 %</td>
<td>175 - 199</td>
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<tr>
<td>D</td>
<td>60 - 69.9 %</td>
<td>150 - 174</td>
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<td>F</td>
<td>Below 60 %</td>
<td>149 and below</td>
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NOTE: I reserve the right to make alterations in the syllabus as and when I deem necessary. You will be notified of these changes in advance.