

BUSSTAT 208
Introduction To Business Statistics
Spring, 2008

Instructor:

Dr. Patrick Shannon

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**Office Hours: Monday and Wednesday 1:30 – 2:30, and 4:00 – 5:00
and by Appointment**

Course Objectives:

The objectives of the course are to extend your understanding and working ability with business statistical tools and to acquaint you with several key business statistical applications. In addition, you will have the opportunity to employ SPSS and Excel software as an aid in working with the various statistical tools covered in this course.

Text:

Required:

Business Statistics: A Decision-Making Approach, 7th Edition by,
Groebner, Shannon, Fry, and Smith. Prentice Hall, 2008

Optional:

*Student Solutions Manual to Accompany Introduction to Business
Statistics*

Prerequisites:

BUSSTAT 207 and MATH160 (or the equivalent) with a grade of “C” or higher.
CIS 104-105 or passing the placement exam

LEARNING OBJECTIVES

1. Recognize ANOVA applications and analyze data using one and two-factor ANOVA procedures
2. Formulate, analyze, and interpret simple and multiple regression models including the use of dummy variables
3. Recognize non-parametric statistical applications, compare parametric and non-parametric procedures, and apply selected non-parametric procedures
4. Identify and distinguish among components in time series data
5. Apply chi-square procedures to compare multiple population proportions, check for independence, or examine goodness of fit
6. Analyze basic models for decision making under uncertainty

Use Excel software as a tool to store, organize, and analyze data using the statistical techniques introduced in this course

Course Outline

January 28: Review of Basic Descriptive and Inferential Statistics
[Chapters 1-10]

- Graphical Techniques
- Numerical Measures
- Data Collection and Sampling
- Estimation and Hypothesis Testing

February 4: Hypothesis Tests and Estimation for Population Variances
[Chapter 11]

February 11: Analysis of Variance [Chapter 12]

- One Way ANOVA
- Randomized Block ANOVA

Group Case Assignment (Due, February 25th)

February 18: President's Day – No Class

February 25: Exam 1 – Chapters 1-12

March 3: Goodness-of-Fit and Contingency Analysis [Chapter 13]

March 10: Simple Linear Regression and Correlation [Chapter 14]

- Scatter Diagrams and Correlation
- Simple Linear Regression

March 17: Multiple Regression and Correlation [Chapter 15]

- Multiple Regression Analysis
- Using Qualitative Variables
- Stepwise Regression Analysis

Group Case Assignment (Due, Tuesday, April 7th)

March 24: Spring Break

March 31: Exam 2 – Chapters 13-15

April 7 Analyzing and Forecasting Time-Series Data [Chapters 16]

- Time-Series Components and Index Numbers
- Trend-based Forecasting

April 14 Forecasting continued [Chapter 16]

April 21: Statistical Process Control [Chapter 18]

April 28 Decision Analysis [Chapter 19]

- Decision-Making Environments
- Decision Criteria
- Cost of Uncertainty
- Decision Tree Analysis

May 5 Dead Week – Review for Final

May 12 Exam 3 – Chapters 16,18, and 19
6:00 – 8:00 PM

Educational Opportunities

Exam 1	100 points
Exam 2	100 points
Exam 3	100 points
Homework	100 points
Group Case Assignment 1	50 points
Group Case Assignment 2	50 points
Quizzes	<u>100 points</u>
Total	600 points

<i>Grading</i>		
97 – 100 %	=	A+
90-96.9%	=	A
87-89.9%	=	B+
83-86.99%	=	B
80-82.9%	=	B-
77 – 79.9	=	C+
70-76.99%	=	C
60-69%	=	D

* There will be no make-up exams. If you have a legitimate reason for missing an exam, Exam 3 will count 200 points rather than 200 points. You must take Exam 3.

Assignments:

Homework Assignments:

The text is loaded with homework problems. Homework Problems will be assigned for each chapter. On the due date, one problem from each chapter will be randomly selected to be graded. No late homework will be accepted. The low Homework score will be dropped

Note, you may work together on Assignments, but you must turn in your own original work. Duplicate submissions will not be graded.

Quizzes:

We will be using an on-line system called PHGrade Assist for quizzes. There will be several quizzes during the semester. You will take these quizzes on-line. The lowest quiz score will be thrown out. You will be required to complete each quiz in a predetermined time period. No make-ups for quizzes are allowed. A missed quiz will count as your low score. You are not allowed to work together on the quizzes.

Exams:

We will have three mid-term exams (exam 3 will be during finals week). These will be problem oriented exams requiring you to demonstrate your understanding of the course material. You will be allowed 1 page of notes at each exam and can use the text book to look up statistical tables. No make up exams will be given during the term.

Group Case Analyses:

Two case analyses will be assigned during the semester to be worked on in 4 person groups. Each group will be responsible for performing the required statistical analysis and preparing a written report of the findings as they relate to the case issues.

The cases will be graded on the basis of quality of statistical analysis and interpretation, quality of the written report, and format of the final submitted product.

No late cases will be accepted. All cases must be submitted in a professional format and must be typed, double spaced, 12 point, Times Roman Font. All Excel output must be inserted into the document and appropriately labeled.

Class Attendance:

Students are expected to attend every class period. However, it is recognized that there are reasons that occur which require a student to miss a class period at the risk of missing important material or quizzes. Attendance records will not be kept.

Academic Honesty:

Although you are encouraged to study together and to help each other, you are responsible to submit your own original work. You can receive no outside help from students or other persons on any exams, quizzes or assignments other than which is specifically specified by the instructor.

Please refer to the Boise State University Academic Honesty policy in the Undergraduate Catalog if you have any questions.