2012

211-20 Business Statistics II

Debbie Tesch
tesch@xavier.edu

Follow this and additional works at: https://www.exhibit.xavier.edu/statistics_syllabi_summer_2012

Recommended Citation
https://www.exhibit.xavier.edu/statistics_syllabi_summer_2012/5

This Restricted-Access Syllabus is brought to you for free and open access by the Statistics Syllabi 2012 at Exhibit. It has been accepted for inclusion in Statistics Syllabi Summer 2012 by an authorized administrator of Exhibit. For more information, please contact exhibit@xavier.edu.
COURSE SYLLABUS

STAT 211–Business Statistics II
Summer 2012

MEETING PLACE: Hailstones Hall 15
INSTRUCTOR: Dr. Debbie Tesch
E-MAIL: tesch@xavier.edu
OFFICE: Smith 204
OFFICE HOURS: MTRF 12:00-1:00
OFFICE: Smith 204
TELEPHONE: 745-3377

TEXT
Anderson / Sweeney / Williams STAT211 Statistics for Business and Economics Xavier University
(Paperback special print for Xavier containing only Chapters 9 – 22.) and Aplia Software

OR
Anderson, D.R., Sweeney, D.J., & Williams, T.A. Statistics for Business and Economics 11e Revised, South-Western, 2012

ALTERNATELY
e-book version of the textbook available online with purchase of Aplia (required) software

DESCRIPTION
Descriptive statistics, sampling and statistical inference within the context of business applications. Simple and multiple regression, including residual analysis and multicollinearity problems. Additional topics may include analysis of variance and time-series forecasting models. Pre-requisite: MATH 156 or STAT210 and INFO 200

WILLIAMS COLLEGE OF BUSINESS MISSION:
“We educate students of business, enabling them to improve organizations and society, consistent with the Jesuit tradition.”

COURSE OBJECTIVES
Upon completion of this course the student should be able to:

1. Use statistical methods in Excel 2010 to create, analyze, and transform data into information used in business decision making.
2. Formulate and test hypotheses about a population mean and/or a population proportion.
3. Develop interval estimates and conduct hypothesis tests about the difference between two population means.
4. Make inferences about the variance of population(s).
5. Conduct goodness of fit tests.
6. Use Excel 2010 to complete statistical data analyses including ANOVA, correlation, regression, and time series.
7. Provide good forecasts or predictions of future values of a time series.

MATERIALS REQUIRED
Aplia Course software (available online or bundled with STAT211 text)

Data files for chapter exercises are posted on the course web site at blackboard.xu.edu where indicated. It is strongly recommended that files be stored in your student folder on the network. Any assignments collected electronically will be posted as assignments on the Blackboard.

CLASS TIME APPROACH
The goal of Intermediate Business Statistics is to impart statistical tools appropriate for the creation, analysis, and transformation of data into information that can be used in business decision making. As such, class time will usually include discussion of homework, introduction of new material, and class time for applying skills of new material to datasets. PowerPoint presentations and lecture/demonstrations will introduce the statistical tools.

Lecture/Demonstrations: Enhance the material in the textbook by:
- Providing the opportunity to follow-along with demonstrated topics hands-on
- Enhancing the material presented in the textbook
- Extending the book material where appropriate
- Providing a chance to hear about the material, ask questions about it, and benefit from questions asked by others

Exams/Quizzes: There will be 2 take-home exams covering material from textbook chapters 8 - 16 and related exercises. Multiple choice questions for these take-home exams will be completed in class.
Homework: A major component of the course is the use of statistical tools and computer software (Excel 2007) to analyze data. As such, a portion of each class will be devoted to initiating the creation of these exercises. There will rarely be enough time to complete assigned exercises in class. Missing exercises will result in deducted points based on the total number of exercises. Homework results will be posted on the Blackboard. **ANY SUBMITTED ELECTRONIC FILE CONTAINING A NAME OTHER THAN THE INTENDED AUTHOR WILL RESULT IN A ZERO FOR BOTH PARTIES (see ACADEMIC HONESTY statement below).**

Grading: A grading rubric will be provided for graded chapter exercises.

**CLASS POLICIES**

1. Attendance will be taken every class meeting. In an intensive summer intercession such as this, attendance is important. Missed classes will be taken in to consideration when computing the final grade.

2. Assignments are to be submitted on the due date. **LATE ASSIGNMENTS WILL NOT BE ACCEPTED FOR ANY REASON.** All answers to homework questions will be posted by the following class period. A score of zero will be assigned for late assignments. In lieu of accepting late assignments, the 2 lowest homework grades will be ignored in the grading process.

3. Students are expected to keep track of their own exam scores and class standing. You may want to use Excel for this application. The instructor will not provide this information prior to final exams.

4. No course materials will be accepted for credit **AFTER** the final exam has been completed, regardless of the circumstances.

**ACADEMIC HONESTY**

“All work submitted for academic evaluation must be the student’s own. Certainly, the activities of other scholars will influence all students. However, the direct and unattributed use of another’s efforts is prohibited as is the use of any work untruthfully submitted as one’s own.” The penalty for violation of this policy will be a zero for that assignment if it is a first offense. Subsequent violation will result in an **F for the course.**

**EVALUATION**

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Grade %</th>
<th>Grade Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aplia Project – CH5-8 Review</td>
<td>10%</td>
<td>95 – 100</td>
</tr>
<tr>
<td>Exam #1 – Chapters 9 – 12</td>
<td>40%</td>
<td>90 – 94</td>
</tr>
<tr>
<td>Exam #2 – Chapters 13 – 16, 18</td>
<td>40%</td>
<td>87 – 89</td>
</tr>
<tr>
<td>Homework/Dataset exercises</td>
<td>10%</td>
<td>83 – 86</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80 – 82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>77 – 79</td>
</tr>
<tr>
<td></td>
<td></td>
<td>73 – 76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70 – 72</td>
</tr>
<tr>
<td>Week of</td>
<td>Class Topics</td>
<td>Reading</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| 5/7/12  | Chapter 8 – Interval Estimation  
Chapter 9 – Hypothesis Tests  
**APLIA PROJECT Chapters 5 – 8 - REVIEW** | pp299-337  
pp338-392 |
| 5/8/12  | Chapter 10 – Statistical Inference About Means and Proportions with Two Populations | pp393-432 |
| 5/9/12  | Chapter 11 – Inferences About Population Variances | pp434-456 |
| 5/10/12 | Chapter 12 – Tests of Goodness of Fit and Independence | pp457-489 |
| 5/11/12 | Complete HW Exercises  
**EXAM #1** – In-class Multiple Choice Questions  
Take home Problem Set | |
| 5/14/12 | Chapter 13 – Experimental Design and Analysis of Variance | pp490-542 |
| 5/15/12 | Chapter 14 – Simple Linear Regression | pp543-623 |
| 5/16/12 | Chapter 15 – Multiple Regression | pp624-692 |
| 5/17/12 | Chapter 16 – Regression Analysis: Model Building | pp693-743 |
| 5/18/12 | Chapter 20 -  
**EXAM #2** – In-class Multiple Choice Questions  
Take home Problem Set | pp 744-762 |