2017

STAT 211-03 Statistics

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COURSE SYLLABUS

STAT 211 – Statistics  
Spring 2016

MEETING PLACE:  
Smith Hall G28  
Tuesday 6:00 – 8:30pm

INSTRUCTOR:  
Gwen White  
Office Hours: Tuesday 4 – 6 pm  Wednesday 10-12  
All other times by appointment

OFFICE:  
Smith 221

E-MAIL  
whiteg@xavier.edu  
WEB SITE:  
canvas.xavier.edu  
513-745-2943

TEXT  
2016 (should already have from STAT 210)  
9781259621680

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 include analysis of variance and time-series forecasting models.

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 2013/2016 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. Conduct and evaluate hypothesis tests based on one-way ANOVA, two-way ANOVA with no interaction, two-way ANOVA with interaction, and tests to determine which means differ.
7. Estimate simple and multiple linear regression models and interpret the coefficients.
8. Formulate and test hypotheses that determine individual and joint significance of regression models.
9. Conduct and evaluate hypothesis tests for regression models with nonlinear relationships.
10. Conduct and evaluate hypothesis tests for regression models with dummy variables.
11. Provide forecasts for prediction of future values of a time series.
12. Calculate and determine simple and aggregate price indices.
13. Conduct and evaluate hypotheses using nonparametric tests.

MATERIALS REQUIRED  
Data files for chapter exercises are found on the course web site at Canvas.xavier.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 Canvas. Students will use Connect from McGraw Hill to complete homework assignments.

CLASS TIME APPROACH  
The goal of Statistics for Business II 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
• 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: There will be 3 exams covering material from textbook chapters and related exercises. Exams will be worth 45% of the grade. The final exam will cover all material and will worth 20%

Homework: A major component of the course is the use of statistical tools and computer software (Excel 2013) to analyze data. Homework assignments will consist of online Assignments provided in the course Connect software. A portion of each class may be devoted to initiating the creation of these exercises. There will rarely be enough time to complete assigned exercises in class.

Group Project: Students will be required to complete a statistical assigned case problem from the textbook or one of my choosing.

CLASS POLICIES
1. Attendance will be taken every class meeting and count towards 10% of your final grade.
2. Assignments are to be submitted on the due date in Canvas and will be graded by the instructor. LATE ASSIGNMENTS WILL loose 10% PER EACH DAY LATE.
3. Students are expected to keep track of their own assignment/exam scores and class standing. Points available on the Canvas reflect ONLY total points of the assignment, not the weighted assignment value. You may want to use Excel to compute weighted application scores. 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

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<tr>
<th>Assignments</th>
<th>Grade %</th>
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<td>93-90 A-</td>
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