GW SYLLABUS – STAT 2112.12
BUSINESS AND ECONOMICS STATISTICS
SPRING 2014

General Information
Instructor: Joshuah Touyz
Course: STAT 2112.12
Course Times: TR 12:45-2:00 PM
Location: PHIL B152
Prerequisites: Either STAT2111, STAT1051, STAT1053 or Equivalent

Contact Information
Office Address: 301-A Old-Main, 1922 F Street N.W.
Email: joshuahtouyz@gwu.edu
Office Hours: TF 2:00-3:00

Course Information:
Course Homepage: http://blackboard.gwu.edu. Important information will frequently be updated through blackboard.

Course Description:
This course focuses on applied areas of statistics in the domains of business and economics. The course will introduce students to technical, computational and theoretical statistical frameworks that will allow them to evaluate, construct and analyze business and economic data, models and processes. The statistical programming language SAS will be introduced.

What Will be Covered?
Time permitting the following topics will be covered:
- Design of Experiments and analysis of variance.
- Simple and Multiple Linear Regression.
- Categorical Data Analysis.
- Time Series Analysis and Forecasting
- Nonparametric Statistics

Learning Outcomes:
By the end of this course you should be able to:
1. Understand, implement and analyze basic experiments
2. Construct, interpret and explain simple and multiple linear regression models
3. Analyze categorical data through one and two-way tables
4. Describe, model and forecast time-series
5. Write simple business and economic programs to analyze data in the statistical programming language SAS.
Textbook:
Note: You will need a scientific (does not need to be a graphing) calculator to complete many of the problems.

Course Evaluation
Your final grade will be based on:
- 6 Homework Assignments.
- 2 Quizzes.
- 2 Mid-terms.
- 1 Final.
- Professionalism.
- Lectures Notes and/or Question Sets
All homework, quizzes, mid-terms and final are graded and count towards your final grade.

A Couple of Notes
1. Assignments:
   Assignments are comprised of three parts:
   a. Technical mastery.
   b. Problem Solving.
   c. Statistical programming.
   It is expected that assignments are stapled with the accompanying cover page. Students will have at 2 weeks to complete each assignment from the day it is handed out.
   - Up to 10% will be deducted from each assignment if pages are not stapled and do not include a cover page.
   - Late homework submissions may (at the discretion of the instructor) be accepted with a concomitant penalty.

2. Professionalism Points
   Students receive 3 professionalism points at the beginning of the semester. Each time a query is made regarding information presented on this syllabus 1.5 points is deducted.

3. Lecture Notes/Question Sets
   Students may receive up to an additional:
   - 5% by submitting a typed-up lecture,
   - 5% by submitting a set of 5 questions with solutions
   - You may receive a maximum of 10% additional points and must sign-up at the beginning of the semester to transcribe a specific lecture and question set.
   - Students are expected to use the provided online templates for writing lecture notes and question sets.
   - Note: Points will be assigned based on the quality of the submitted lecture notes and questions. No points will be awarded for questions copied from the book.
Exams:
There will be 2 midterm tests and a final. Both midterms and final exam are cumulative. Exams are closed book; however, you will be allowed a one-page handwritten note sheet. The exam dates are listed below:
1. **Midterm 1:** *Thursday February 20th 2014*
2. **Midterm 2:** *Thursday April 17th 2014*
3. **Final Exam:** TBA

Make-Up Requests and Re-Grading Policy:
No homework, quiz or exam make-ups are allowed (except under extraordinary circumstances such as a death in the immediate family or a true medical emergency.) In such cases, I require written proof (a note from a GW physician) of the cause of the absence. If you miss a graded assignment due to a religious holiday, you must notify me during the first week of the semester.
- During the semester requests for re-grading will be accepted within a 14-day working period after the homework, quiz or exam is returned.
- After the semester requests for reviewing and re-grading will be considered, appointments must be made ahead of time.

Evaluation
Students will be evaluated as follows:

<table>
<thead>
<tr>
<th></th>
<th>Scheme A</th>
<th>Scheme B</th>
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</thead>
<tbody>
<tr>
<td>2 Quizzes</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>6 Assignments</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>2 Midterms</td>
<td>27%</td>
<td>12%</td>
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<tr>
<td>Professionalism</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
<td>60%</td>
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Calendar and Important Dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Task</th>
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</thead>
<tbody>
<tr>
<td>January 14th</td>
<td>Tuesday (T)</td>
<td>Assignment 1 Issued</td>
</tr>
<tr>
<td>January 28th</td>
<td>Tuesday (T)</td>
<td>Assignment 2 Issued</td>
</tr>
<tr>
<td><strong>February 6th</strong></td>
<td><strong>Thursday (R)</strong></td>
<td>Quiz 1</td>
</tr>
<tr>
<td>February 14th</td>
<td>Tuesday (T)</td>
<td>Assignment 3 Issued</td>
</tr>
<tr>
<td><strong>February 20th</strong></td>
<td><strong>Thursday (R)</strong></td>
<td><strong>Test 1</strong></td>
</tr>
<tr>
<td>February 28th</td>
<td>Tuesday (T)</td>
<td>Assignment 4 Issued</td>
</tr>
<tr>
<td><strong>March 6th</strong></td>
<td><strong>Thursday (R)</strong></td>
<td>Quiz 2</td>
</tr>
<tr>
<td>March 18th</td>
<td>Tuesday (T)</td>
<td>Assignment 5 Issued</td>
</tr>
<tr>
<td>April 1st</td>
<td>Tuesday (T)</td>
<td>Assignment 6 Issued</td>
</tr>
<tr>
<td><strong>April 17th</strong></td>
<td><strong>Thursday (R)</strong></td>
<td><strong>Test 2</strong></td>
</tr>
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Important Links
The following links contain pertinent information about the exam schedule and academic calendar.

1. GWU Final exam schedule: http://my.gwu.edu/mod/exam_schedules
2. GWU Academic calendar: http://www.gwu.edu/ac.cfm

Important Academic Information

Attendance Policy
Attendance is not mandatory. However it is expected you attend classes on a regular and consistent basis. Should you be absent on a given day of class I request that you inform me at least one day prior to your absence. If you are sending me emails regarding attendance please include in the subject line Attendance or Absence.

Academic Integrity
I support the GW Code of Academic Integrity. It states: “Academic dishonesty is defined as cheating of any kind, including misrepresenting one’s own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information.” For the remainder of the code, see: http://www.gwu.edu/~ntegrity/code.html.

Support for students outside the classroom

DISABILITY SUPPORT SERVICES (DSS)
Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: http://gwired.gwu.edu/dss/

UNIVERSITY COUNSELING CENTER (UCC) 202-994-5300
The University Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include:
- Crisis and emergency mental health consultations
- Confidential assessment, counseling services (individual and small group), and referrals

http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices

Security
In the case of an emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location.