Webster UNIVERSITY

The School of Business & Technology

BUSN 5760 Course Syllabus

Course	**BUSN 5760 - Applied Business Statistics**
Term	Spring 2, 2010, Mar 15 – May 15
Instructor	Name: James D. Behel Phone: 501-230-0340 Email: behelja@webster.edu
Catalog Description	The student examines the application of statistical analysis, hypothesis testing, and regression analysis in business decision making. The course should focus on the utilization of statistical methods as applied to business problems and operations.
Prerequisites	
Course Level Learning Outcomes	1. Students can describe basic statistics concepts and apply proper sampling methods. 2. Students can compute basic descriptive statistics. 3. Student can describe a normal distribution and apply the concepts of the normal distribution to that of sampling distributions. 4. Students can construct confidence intervals for both numerical and categorical data, and can apply to a real-world business scenario. 5. Students can use numerical or categorical data to assess the validity of statements made in a business setting. 6. Students can perform simple and multiple regression analysis. 7. Students can determine expected wealth in an uncertain business climate. 8. Students can apply various advanced forecasting techniques.
Materials	*Data Analysis for Managers* (Second Edition) Albright, Winston, Zappe. Publisher: Thomson-Brooks/Cole, ISBN: 0-534-38366-1 Calculator: TI BA II Plus preferred, or TI Series 83 or beyond graphing. Computer: Microsoft EXCEL (Spreadsheet). Access the Virtual Bookstore at http://bookstore.mbsdirect.net/WEBSTER.HTM or you can call MBS Direct at 800-325-3252.
Grading	Recommended scale **Grade Components:** Participation 25 pts Descriptive Presentation 50 pts During First 5 Weeks Inferential Presentation 50 pts During Last 4 Weeks Exam 1 100 pts Week 5 Final 100 pts Due in Week 9 Prospectus 100 pts Due in Week 9 Total Points 425 pts

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Grade Breakdown:
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<tr><th>PTS.</th><th>Letter Grade</th></tr>
<tr><td>>395</td><td>A</td></tr>
<tr><td>382-395</td><td>A-</td></tr>
<tr><td>374-381</td><td>B+</td></tr>
<tr><td>353-373</td><td>B</td></tr>
<tr><td>340-352</td><td>B-</td></tr>
<tr><td>297-339</td><td>C</td></tr>
<tr><td><297</td><td>F</td></tr>
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Course Requirements

The GRADUATE catalog provides these guidelines and grading options:
A/A– Superior graduate work
B+/B/B– Satisfactory graduate work
C Work that is barely adequate as graduate-level performance
CR Work that is performed as satisfactory graduate work (B– or better). A grade of "CR" is reserved for courses designated by a department, involving internships, a thesis, practicums, or specified courses.
F Work that is unsatisfactory
I Incomplete work
ZF An incomplete which was not completed within one year of the end of the course. ZF is treated the same as an F or NC for all cases involving G.P.A., academic warning, probation, and dismissal.
IP In progress
NR Not reported
W Withdrawn from the course
</td></tr>
<tr><td>Activities</td><td>Extensive use of the computer for both student-based and instructor-based presentations and demonstrations will be made. Videos will be used to enhance the study.</td></tr>
<tr><td>Policy Statements: University Polices</td><td>University policies are provided in the current course catalog and course schedules. They are also available on the university website. This class is governed by the university's published policies. The following policies are of particular interest:

A student may submit their term paper to the On-Line Writing Center in St. Louis by email and have a coach make suggestions/corrections. It is up to the student to allow sufficient time for this process to be utilized and still turn in the term paper on the assigned date. Go to http://www.webster.edu/acadaffairs/asp/wc/online.html</td></tr>
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Academic Honesty
The university is committed to high standards of academic honesty. Students will be held responsible for violations of these standards. Please refer to the university's academic honesty policies for a definition of academic dishonesty and potential disciplinary actions associated with it.

Drops and Withdrawals
Please beware that, should you choose to drop or withdraw from this course, the date on which you notify the university of your decision will determine the amount of tuition refund you receive. Please refer to the university policies on drops and withdrawals (published elsewhere) to find out what the deadlines are for dropping a course with a full refund and for withdrawing from a course with a partial refund.

Special Services
If you have registered as a student with a documented disability and are entitled to classroom or testing accommodations, please inform the instructor at the beginning of the course of the accommodations you will require in this class so that these can be provided.

Disturbances
Since every student is entitled to full participation in class without interruption, all students are expected to be in class and prepared to begin on time. All pagers, wireless phones, or other electronic devices must be turned off, or switched to vibrate, when you enter the classroom.

Disruption of class, whether by latecomers, noisy devices, or inconsiderate behavior is not acceptable. Students are expected to treat the instructor and other students with dignity and respect, especially in cases where a diversity of opinion arises. Students who engage in disruptive behavior are subject to disciplinary action, including removal from the course.

Student Assignments Retained
From time to time, student assignments or projects will be retained by The Department for the purpose of academic assessment. In every case, should the assignment or project be shared outside the academic Department, the student's name and all identifying information about that student will be redacted from the assignment or project.

Contact Hours for this Course
It is essential that all classes meet for the full instructional time as scheduled. A class cannot be shortened in length. If a class session is cancelled for any reason, it must be rescheduled.

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Course Policies	
Week 1:	Meeting 1: Hour 1: Descriptive Statistics and Inference Review, Macro View: Chapters 2,3,5 Topics Will include the types of data, descriptive statistics, interval estimation, hypothesis testing, normal distributions and parametric assumptions. Hour 2: Presentations: Jimmy Behel_____ Topic(DataSet):_Bank_____ Hour 4: Discussion: Video – Comparable Worth
Week 2:	Meeting 2: Hour 1: Data and Samples: Chapters 7, 8 Topics will include parameter and sample notation, sampling distribution, and standard values. Hour 2: Presentations: _____Topic (Data Set): _____ _____Topic (Data Set): _____ Hour 3: Presentations: _____ Topic (Data Set): _____ _____ Topic (Data Set): _____ Hour 4: Discussion: Video – Comparing Two Means

Week 3:	Meeting 3: Hour 1: Transition to inference. Chapter 8 Topics will include the introduction of inference, interval estimation using z and t distribution. Hour 2: Presentations: _____Topic (Data Set): _____ _____Topic (Data Set): _____ Hour 3: Presentations: _____ Topic (Data Set): _____ _____ Topic (Data Set): _____ Hour 4: Discussion: Video – Models for Growth
Week 4:	Meeting 4: Hour 1: Inference review, including confidence intervals, hypothesis test, Hour 2: Presentations: _____Topic (Data Set): _____ _____Topic (Data Set): _____ Hour 3: Presentations: _____ Topic (Data Set): _____ _____ Topic (Data Set): _____ Hour 4: Discussion: Video
Week 5:	Meeting 5: Hour 1: Correlation Analysis and Linear Relationships: Chapters 11, 12. Topics will include the least-squares method, assumptions, coefficients of determination and correlation, inference for the slope, and multiple regression. In-Class Exam Presentation: Jimmy Behel_____ Topic (Data Set): _Bank____ Hour 4: Discussion: Video – Time Series, Describing Relationships

Week 6:	Meeting 6: Hour 1: Continue regression, ANOVA, sample selection, classic experimental models, bias, data integrity, treatments, and control groups. Hour 2: Presentations: _____Topic (Data Set): _____ _____Topic (Data Set): _____ Hour 3: Presentations: _____ Topic (Data Set): _____ _____ Topic (Data Set): _____ Hour 4: Discussion: Video – Experimental Design, Samples and Surveys
Week 7:	Meeting 7: Hour 1: Multiple Regression and variable reduction. Hour 2: Presentations: _____Topic (Data Set): _____ _____Topic (Data Set): _____ Hour 3: Presentations: _____ Topic (Data Set): _____ _____ Topic (Data Set): _____ Hour 4: Discussion: Guest Speaker

Week 8:	Meeting 8: Hour 1: Non Parametric Methods: Topics will include Chi square Goddness of Fit analysis as well as contingency Tables and test of independence. Take Home Final will be distributed. Hour 2: Presentations: _____Topic (Data Set): _____ _____Topic (Data Set): _____ Hour 3: Presentations: _____ Topic (Data Set): _____ _____ Topic (Data Set): _____ Hour 4: Discussion: Video – Test of relationships
Week 9:	Meeting 9: Hour 1: Take-home Final Exam Due and presentations. The format of this meeting will likely be adjusted for both the benefits of the presenters and Course Wrap. Prospectus is Due, unless later deadline is announced. Hour 2: Presentations: _____Topic (Data Set): _____ _____Topic (Data Set): _____ Hour 3: Presentations: _____ Topic (Data Set): _____ _____ Topic (Data Set): _____ Hour 4: Discussion
Additional Information	
Approved by	Michael Hostetler, Faculty Coordinator, 27 Nov 2009