

Course	BUSN 5760 Applied Business Statistics, LAAFB
Term	Fall 1, 2009 August 17 – October 16, 2009
Instructor	Name: Byung Hong Phone: 1-949-701-1172 Email: hongb6@cox.net
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	None There are no formal prerequisites to this course. However, it is assumed that students have adequate writing, mathematical, and analytical skills.
Course Level Learning Outcomes	Outcome
	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.
	Statement of Course Objectives:
<ol style="list-style-type: none"> 1) To help students obtain knowledge of statistical tools used for advanced statistical analysis of business data. 2) To assist students to apply the most efficient means to analyze data as it might be presented in a variety of real life business situations. 3) To provide students with approaches to computing statistical significance in business situations by manual calculation and by the use of a computer. 4) To have students identify intentional bias in business data gathered. 5) To make students understand the importance of statistical analysis in a variety of business decisions. 	

	<p>Course Outcome Competencies:</p> <p>At the completion of this course, the student will be able to:</p> <ol style="list-style-type: none"> 1) identify biased or intentionally manipulated business data, 2) differentiate a significant difference from an apparent difference in statistical data, 3) construct and test hypotheses in order to critically evaluate business data, 4) solve statistical problems by the use of a computer, 5) forecast and predict future results based on a historical data set by means of extrapolation and interpolation, 6) allocate resources in efficient ways by the application of the statistical quality control, and 7) design a statistical approach to make a meaningful evaluation from an unorganized raw data set. 																								
Textbook	<p><i>Statistics for Managers</i> 5th edition, by Levine, Stephan, Krehbiel, and Berensen. Published by Prentice Hall, 2008. ISBN-10: 0136149901; ISBN-13: 9780136149903</p> <p>Supplementary Readings: The Wall Street Journal at least for the duration of the course.</p> <p>You can call MBS Direct at 800-325-3252 and give your school name, site or program, and course number or access the Virtual Bookstore at http://bookstore.mbsdirect.net/WEBSTER.HTM.</p>																								
Grading	<p>Visual aids: The instructor will bring necessary equipment to the class.</p> <p style="text-align: center;">Grading Weights:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">Homework</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Attendance</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Mid-term exam</td> <td style="text-align: right;">30%</td> </tr> <tr> <td>Final Exam</td> <td style="text-align: right;">40%</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black; padding-top: 5px;"> <div style="display: flex; justify-content: space-between; width: 100%;"> Total 100% </div> </td> </tr> </table> <p style="text-align: center;">Grade Scale:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">A</td> <td style="text-align: right;">93-100</td> </tr> <tr> <td>A-</td> <td style="text-align: right;">90-92</td> </tr> <tr> <td>B+</td> <td style="text-align: right;">87-89</td> </tr> <tr> <td>B</td> <td style="text-align: right;">84-86</td> </tr> <tr> <td>B-</td> <td style="text-align: right;">80-83</td> </tr> <tr> <td>C</td> <td style="text-align: right;">70-79</td> </tr> <tr> <td>F</td> <td style="text-align: right;">69 and below</td> </tr> </table>	Homework	20%	Attendance	10%	Mid-term exam	30%	Final Exam	40%	<div style="display: flex; justify-content: space-between; width: 100%;"> Total 100% </div>		A	93-100	A-	90-92	B+	87-89	B	84-86	B-	80-83	C	70-79	F	69 and below
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Activities	As stated in Weekly Schedule.
Policy Statements: University Policies	<p>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:</p> <p>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.</p> <p>Drops and Withdrawals Please be aware 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.</p> <p>Special Services If you need accommodations for a disability, please let the instructor know at the beginning of the course so that they can be provided.</p> <p>Disturbances Since every student is entitled to full participation in class without interruption, disruption of class by 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.</p> <p>Attendance Policy The University reserves the right to drop students who do not attend class the first week of the term/semester. Students are expected to attend all class sessions of every course. In the case of unavoidable absence, the student must contact the instructor directly. The instructor may give ample warning to the student and then recommend that the student withdraw from the course. The student is subject to appropriate academic penalty for incomplete or unacceptable makeup work, or for excessive or unexcused absences. Generally, a student who misses more than one four-hour course</p>

	<p>period (per course) without a documented military or medical excuse and advanced permission from the instructor should withdraw from the class. Instructor contact information is available on all syllabi. Please make sure to contact your instructors directly regarding an absence. Masters degree courses meet for nine weeks.</p>
<p>Course Policies</p>	<p>Diligence Students are expected to complete all written and reading assignments prior to the class meeting. Written work should be in APA format and meet university-level quality standards. A set of specific expectations will be distributed and discussed at the first class meeting.</p> <p>This syllabus may be revised at the discretion of the instructor without the prior notification or consent of the student. The schedule below presents an approximate expectation of course progress. The instructor reserves the right to add, delete, or modify any weeks of this schedule. The instructor also reserves the right to change the overall course grade weighting. Any changes will be announced in class.</p> <p>If you miss class you are responsible for getting notes and assignments. <i>No late homework will be accepted and missed quizzes will receive scores of zero unless prior approval to miss class is obtained from the instructor.</i> Makeup exams will be scheduled only if arranged in advance of the scheduled exam date.</p>
<p>Weekly Schedule</p>	<p>Schedule of required readings, class preparations and assignments, lectures, and exams:</p> <p>All nine classes will be held on Monday as shown below. The class hours will be from 5:00 – 9:00 P.M. (08/18, 08/25, 09/01, 09/08, 09/15, 09/22, 09/29, 10/06, 10/13)</p> <p>Week One: 08/17/09 Students are recommended to read Chapters 1 and 2 prior to coming to the class. The topics to be covered in the class will be the importance of statistics in business and management, definitions of descriptive and inferential statistics, types of data sets, construction of a frequency distribution, graphs of statistical data, setting up EXCEL program for statistical operation. Other topics to be covered in the class will be frequency distribution and a variety of charts. Homework will be assigned at the end of the class. Term-paper assignment will be made.</p> <p>Week Two: 08/24/09 Students are recommended to read Chapters 3 and 4 prior to coming to the class. The previous homework will be reviewed. The topics to be covered in the class will be calculation of the Mean, Mode, and</p>

Median and discussion of their significances; types of probability and their applications, the use of probability in the statistics. Homework will be assigned at the end of the class.

Week Three: 08/31/09 Students are recommended to read Chapters 5 and 6 prior to coming to the class. The previous homework will be reviewed. The topics to be covered in the class will be binomial distribution, normal distribution, uniform distribution, and exponential distribution. Homework will be assigned at the end of the class.

Week Four: 09/07/09 LABOR DAY HOLIDAY MAKE UP DAY TO BE SCHEDULED.

Students are recommended to read Chapters 7 and 8. The previous homework will be reviewed. The topics to be covered in the class will be Confidence intervals, sample size. Hypothesis testing for “Z”, “t” will be discussed including two tail and one tail testing.

The **mid-term exam will be administered.**

Week Five: 09/14/09 Students are recommended to read Chapters 9 and 12. The previous homework will be reviewed. The topics to be covered in the class will be hypothesis testing, one sample and two sample testing. Independent and dependent (Paired) “t” testing will be covered and ANOVA test, Chi square application will be discussed. Mid-term examination results will be discussed and homework will be assigned at the end of the class.

Week Six: 09/21/09 Students are recommended to Chapters 13 and 14 prior to coming to the class. The forecasting techniques by means of the linear regression analysis. Multiple regression analysis and non-significant independent variables will be discussed to determine significant and non-significant parameters. Homework will be assigned at the end of the class.

Week Seven: 09/28/09 The students are recommended Chapters 15 and 16 prior to coming to the class. In the class, quadratic regression model, time series and forecasting technique will be discussed. Seasonalization of data and moving average will be also discussed. The statistical quality control will be discussed. Interpretation of indices will also be discussed. Homework will be assigned at the end of the class.

Week Eight: 10/05/09 Students are recommended to read Chapter 17 prior to coming to the class. Decision theory and criteria for decision making will be presented. Homework will be assigned at the end of the

	<p>class.</p> <p>Week Nine: 10/12/09 Students are recommended to reach Chapter 18 prior to coming to the class. The topics to be covered will be Pareto chart, variable and attribute control charts, and interpretation of these charts. Term-paper presentations.</p> <p>Final Examination.</p>
Additional Information	<p>Students must have the assigned course textbook and an approved syllabus in their possession at the first class meeting. All assignments and exams are to be typewritten in APA format. The case project will require a minimum of seven cited academic-grade reference sources. The best way to accomplish this requirement is through the use of the Webster Eden Library PASSPORTS system. You are encouraged to make use of the Webster On-Line Writing Center. All assignments are due at the beginning of class for the week under which they are listed. This includes the assignments due the first week. A grade penalty will be assessed on late submissions. The term project will, and other written submissions may, be submitted to www.turnitin.com and other plagiarism detection services. The <i>Turnitin</i> class ID for this term is 1419542, and the password is “albert”. The settings are such that you may view your results prior to submitting for grade, and it is strongly suggested that you do so.</p>