

Course	MRKT 5890 Marketing Statistics
Term	Fall 2, 2009
Instructor	Tom Brailsford Telephone: 816-228-7490 (h), 816-274-3989 (w), 816-506-7069 (m) e-mail: tbrail@hallmark.com
Catalog Description	The student examines the application of statistical thinking and analysis to marketing decisions. Descriptive statistics, probability theory, sampling theory, statistical inference, and techniques of statistical analysis are included, especially as they apply to real-life marketing decisions in business.
Prerequisites	MRKT 5000 – Marketing MBA students with an emphasis in Marketing should take MRKT 5890. Students who have completed BUSN 6060 may not enroll in MRKT 5890. M.B.A. students who are taking an emphasis in marketing and who take BUSN 6060 can substitute that course for MRKT 5890.
Course Level Learning Outcomes	Upon completion of this course the student should: <ol style="list-style-type: none"> 1. Be able to explain the activities involved in statistics particularly as they apply to marketing applications. 2. Be able to explain the process of collecting, classifying, analyzing, and interpreting information in support of the marketing research effort. 3. Have a working knowledge of descriptive and inferential statistical techniques. 4. Have developed skills in statistical analysis and interpretation and forecasting of marketing data. 5. Have insight as to which statistical tests/analyses to use when addressing marketing problems. 6. Have developed skills in communicating statistical activities in a written report.
Materials	Andrew F. Siegel, <i>Practical Business Statistics</i> , 5th Ed. ISBN# 0072821253; McGraw-Hill Irwin
Grading	Homework 25% Learning Activities 25% Final 40% Class Participation 10%

	<p style="text-align: center;">Total 100%</p>
<p>Activities</p>	<p>The time in class will be spent on discussions and exercises, with discussion of homework assignments and group discussion of various classroom exercises. Case studies will be used as often as possible to immerse students in concepts. Attendance and class participation are expected. It will be expected that students have read the assigned reading <u>before</u> coming to class. Homework assigned one week will be due at the next class period.</p>
<p>Policy Statements: University Policies</p>	<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><i>Academic Honesty</i></p> <p style="padding-left: 40px;">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><i>Drops and Withdrawals</i></p> <p style="padding-left: 40px;">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><i>Special Services</i></p> <p style="padding-left: 40px;">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.</p> <p><i>Disturbances</i></p> <p style="padding-left: 40px;">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><i>Student Assignments Retained</i></p>

	<p>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.</p> <p><i>Contact Hours for this Course</i></p> <p>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.</p>
<p>Course Policies</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 change the overall course grade weighting. Any changes will be announced in class.</p> <p>In line with the university's policy on academic honesty, please be advised that instances of academic dishonesty will result in a zero for the assignment and will be reported to the Dean of the School of Business and Technology for further disciplinary action.</p>
<p>Weekly Schedule</p>	<p>Week 1 <hr/>INTRODUCTION, STATISTICAL & SYSTEMS THINKING, LEARNING, & DESCRIPTIVE STATISTICS - Chapters 1, 2, 4, & 5.</p> <p>Chapter 1 will serve as the introduction and overview of the course. Concepts of Systems Thinking and the role of statistics in the learning process will be presented. Chapter 2 introduces data structures. Chapters 4 and 5 introduce the basic techniques used in describing a data set. We will introduce EXCEL as a tool for data analysis.</p> <p>Homework assigned.</p> <p>Week 2 <hr/>VISUAL REPRESENTATIONS OF DATA & DISTRIBUTIONS – Chapter3, 7.3, 7.4</p> <p>Learning Exercise 1. Review of Week 1 homework. Chapter 3 will introduce the student to the use of frequency plots and histograms to visually display and understand data. Sections 7.3 and 7.4 will introduce the normal distribution and how to find the area under</p>

	<p>the normal curve.</p>
Week 3	<p>Homework assigned</p> <hr/> <p>CORRELATION AND MODEL BUILDING – Chapter 11</p> <p>Learning Exercise 2. Learning Exercise 1 and Homework from previous week will be reviewed and discussed. We will continue to explore both the type and strength of relationships between two variables. Building on the topic of correlation we will begin to use one variable to predict another in a linear regression model.</p>
Week 4	<p>Homework assigned</p> <hr/> <p>INTRODUCTION TO PROBABILITY- Chapter 6</p> <p>Learning Exercise 3. Learning Exercise 2 and the previous week's Homework will be reviewed. Chapter 6 introduces the concepts of probability. The focus will be on building an understanding of measuring uncertainty that will be the foundation of hypothesis testing.</p>
Week 5	<p>Homework assigned</p> <hr/> <p>PROBABILITY (cont.) – Chapter 7, Sections 7.1, 7.2; and Chapter 8, Sections 8.2, 8.5</p> <p>Learning Exercise 4. Learning Exercise 3 and the previous week's homework will be reviewed. Using Expected values in the decision making process. The Z and t probability distributions will be introduced as tools for business decision making. Subjective probability, belief functions, and heuristic modeling will be introduced and discussed along with their corresponding sources of bias.</p>
Week 6	<p>Homework assigned.</p> <hr/> <p>SAMPLING – Chapter 8, Sections 8.1, 8.3, 8.4</p> <p>Learning Exercise 5. Learning Exercise 4 and the previous week's homework will be reviewed. We will cover basic concepts of random sampling, both principles and techniques. Sampling statistics and sampling distributions will be introduced as a prelude to hypothesis testing. We will also learn how to choose a sample size to obtain adequate information for decision making.</p>

	<p>Homework assigned.</p> <hr/> <p>Week 7 CONFIDENCE INTERVALS AND HYPOTHESIS TESTING – Chapters 9 & 10</p> <p>Learning Exercise 6. Learning Exercise 5 and the previous week’s homework will be reviewed and discussed. Chapter 9 develops the use of sampling to answer business questions about populations where the mean is unknown. Problems involving means and proportions will be addressed. Chapter 10 introduces tests of hypotheses and how to set them up. The Z-test and t-test will be introduced.</p> <p>Homework assigned.</p> <hr/> <p>Week 8 HYPOTHESIS TESTING (cont.) – Chapters 10 & 17</p> <p>Learning Exercise 7. Learning Exercise 6 and the previous week’s homework will be reviewed and discussed. More on hypothesis testing of means and proportions. Tests of differences between two means or two proportions will be introduced. Multiple examples will be worked and discussed in class.</p> <p>Homework assigned.</p> <hr/> <p>Week 9 COURSE WRAP UP, REVIEW, AND FINAL EXAM</p> <p>Will conclude with discussion of CHI-SQUARE technique for exploring qualitative data and determining the independence of variables. Course review. Final Exam administered last 2 hours of class.</p> <hr/>
Additional Information	Extra credit readings will be available throughout the 9 weeks of class.

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