MIS 301 Statistical Analysis for Business
Summer 2016, (Online except for three exams on campus)

First Summer Session (Sections 1 & 2)

San Diego State University
College of Business Administration
Department of Management Information Systems

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Email: breinig@mail.sdsu.edu Blackboard: blackboard.sdsu.edu
Time: Online, Exams on Campus Office Hours: W, 1:30pm to 3:00pm

Overview: The objective of this course is for students to achieve an understanding of fundamental statistical techniques and how they are applied to decision making and the scientific method. Greater emphasis is placed on the application and interpretation, as opposed to the mathematical derivation, of the techniques covered. The content of this course is essential for any student pursuing an undergraduate business major and any person involved in organizational decision making. This course is intended to help satisfy the Association to Advance Collegiate Schools of Business (AACSB) curriculum criterion for management specific knowledge in the area of “Statistical data analysis and management science as they support decision-making processes throughout an organization.”

Prerequisites: Students are required to have completed Mathematics 120; Economics 201 or Statistics 119.

Learning Objectives:
Upon completing this course, students should be able to…
- Use data from a sample to make inferences about a population.
- Apply probability theory in decision making situations.
- Formulate hypotheses for decision making and research.
- Analyze data using appropriate statistical techniques.
- Interpret the results of statistical analysis.
- Use data analytic software to create visualizations and summary reports of data.

Accessing Course Materials: Course materials will be made available via the SDSU blackboard website (blackboard.sdsu.edu). Please check the website regularly for information about assignments, quizzes, lectures, and exams.

Notes for Online Course:

Technical Requirements: You will need a high speed internet connection with sufficient bandwidth to watch video lectures and reliable and stable enough to complete online quizzes. You will also need Microsoft Excel (preferably 2010 or 2013 or 2016) with the data analysis toolpak installed. I do not believe this toolpak is supported in the Macintosh version of Excel so you will need a Windows environment. Please visit the following website for instructions on installing the Analysis Toolpak for Excel 2010: http://technet.microsoft.com/en-us/magazine/ff969363.aspx. To install the Analysis Toolpak for Excel 2013 or 2016 see: https://support.office.com/en-us/article/Load-the-Analysis-ToolPak-305C260E-224F-4739-9777-2D86F1A5BD89.

It is the student’s responsibility to acquire the software and reliable internet connection. The SDSU Instructional Technology Services (ITS) office advises that the best browser for Blackboard is Firefox. To download Firefox for free, click on the following link: http://www.mozilla.com/en-US/.
Personal Aptitude Requirements: I have had the pleasure of teaching statistics to thousands of students over the years (I first taught the subject in 1999). In my experience, statistics proves to be especially challenging to some students and can be difficult to learn independently. This class will consist of asynchronous video lectures and self-paced learning from the textbook. It will not have the rich back and forth interaction that I enjoy in my regular classes. If you feel that you need a more personalized instruction for this topic then I encourage you to enroll in a regular section.

**Grading:** Grades are determined by your performance on case assignments, quizzes, and exams. There are no make-ups for course grading activities so students should be available to take a quiz or exam, or complete an assignment, on any day during the six week course.

The following weights are used to calculate your course grades:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Case Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Online Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm 1</td>
<td>25%</td>
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<tr>
<td>Midterm 2</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
</tbody>
</table>

Grades are assigned using the following distribution:

- 92-100 A
- 90-92 A-
- 88-90 B+
- 82-88 B
- 80-82 B-
- 78-80 C+
- 72-78 C
- 70-72 C-
- 68-70 D+
- 62-68 D
- 58-62 D-
- 0-58 F

The instructor may curve the grading scale slightly depending on class performance.

**Attention Students with Disabilities**

Please be assured that I will do all that I can to help provide accommodations for students with disabilities. I include the following note provided from Student Disability Services:

*If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Disability Services. Your cooperation is appreciated.*
Cheating and Plagiarism

Cheating and plagiarism will not be tolerated in this class. Please review the University Policy file with respect to cheating and plagiarism. Students caught cheating or committing plagiarism may receive an F on the assignment or exam as well as an F for the class. The following excerpt provides definitions of each:

Cheating shall be defined as the act of obtaining or attempting to obtain credit for academic work by the use of dishonest, deceptive, or fraudulent means. Examples of cheating include, but are not limited to (a) copying, in part or in whole, from another’s test or other examination; (b) discussing answers or ideas relating to the answers on a test or other examination without the permission of the instructor; (c) obtaining copies of a test, an examination, or other course material without the permission of the instructor; (d) using notes, cheat sheets, or other devices considered inappropriate under the prescribed testing condition; (e) collaborating with another or others in work to be presented without the permission of the instructor; (f) falsifying records, laboratory work, or other course data; (g) submitting work previously presented in another course, if contrary to the rules of the course; (h) altering or interfering with the grading procedures; (i) plagiarizing, as defined; and (j) knowingly and intentionally assisting another student in any of the above.

Plagiarism shall be defined as the act of incorporating ideas, words, or specific substance of another, whether purchased, borrowed, or otherwise obtained, and submitting same to the university as one’s own work to fulfill academic requirements without giving credit to the appropriate source. Plagiarism shall include but not be limited to (a) submitting work, either in part or in whole, completed by another; (b) omitting footnotes for ideas, statements, facts, or conclusions that belong to another; (c) omitting quotation marks when quoting directly from another, whether it be a paragraph, sentence, or part thereof; (d) close and lengthy paraphrasing of the writings of another; (e) submitting another person’s artistic works, such as musical compositions, photographs, paintings, drawings, or sculptures; and (f) submitting as one’s own work papers purchased from research companies.
## Tentative Course Outline*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topics</th>
<th>Chapter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5/23 – 5/27</td>
<td>Data and Statistics, Descriptive Statistics, Introduction to Probability Theory</td>
<td>1, 2, 3, 4</td>
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<tr>
<td>2</td>
<td>5/31 – 6/3</td>
<td>Discrete Probability Distributions, Continuous Probability Distributions, Midterm 1 on Friday June 3</td>
<td>5, 6</td>
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<tr>
<td>3</td>
<td>6/6 – 6/10</td>
<td>Sampling and Sampling Distributions, Interval Estimation, Hypothesis Testing</td>
<td>7, 8, 9</td>
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<td>4</td>
<td>6/13 – 6/17</td>
<td>Statistical Inference about Means and Proportions with Two Populations, Inferences about Population Variances Midterm 2 on Friday June 17</td>
<td>10, 11</td>
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<tr>
<td>5</td>
<td>6/20 – 6/24</td>
<td>Tests of Goodness of Fit and Independence, Experimental Design and Analysis of Variance</td>
<td>12, 13</td>
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<tr>
<td>6</td>
<td>6/27 – 7/1</td>
<td>Simple Linear Regression, Multiple Regression Final Exam on Friday July 1</td>
<td>14, 15</td>
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*The week-to-week schedule may vary depending on circumstances. Quiz and Case dates will be specified on the website but assessments will typically take place on Tuesdays, Wednesdays, Thursdays and Fridays. Exams will be held on Fridays on campus at a venue to be determined. The final exam must be held on Friday July 1 and so to space the exams evenly I made the midterms on Friday as well.

**Note:** The three exams will be held on campus from 4:00pm to 5:50pm on June 3, June 17, and July 1. No exceptions. Please understand that approximately one-third of all enrolled students contact me with a request to reschedule an exam’s date, time, or location. I cannot accommodate all of these requests. I insist on in-person, on-campus exams to reduce cheating. All other aspects of the course are online.