BA 623 Statistical Analysis

Spring 2017, Section 1

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

Instructor: Dr. Bruce A. Reinig
Office: SSE-3439
Phone: (619) 594-3032
Email: breinig@sdsu.edu

Office Hours: T 1:30pm to 3:00pm or by appt.
Web: blackboard.sdsu.edu

Time: Section 1: T 4:00pm – 6:40pm
Venue: EBA 339


Prerequisites: Classified graduate standing and basic statistics.

Catalog Description: Understanding and applications of statistics for problem solving and managerial decision making.

Overview: The objective of this course is to learn to use statistical analysis to support managerial decision making. Greater emphasis is placed on the application and interpretation, as opposed to the mathematical derivation, of the techniques covered. 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.”

MBA Program Goals:

Goal #1: Develop a solid foundation in theoretical concepts and managerial skills needed for business.

Goal #2: Formulate, communicate, strategies to solve business problems.

B A 623 contributes to these goals through its student learning outcomes:
  • Use data from a sample to make inferences about a population
  • Develop strategies for problem-solving and decision-making using business analytics
  • Formulate hypotheses for decision making and research
  • Apply statistical analysis to improve managerial decision making
  • Critically evaluate statistical findings to determine their usefulness to the organization
  • Present statistical results using graphics, text, and the spoken word

General Course Policies: Attendance is not included in the calculation of course grades. However, it is usually necessary to attend every class to earn a high grade for this course and it may be difficult to catch up after missing a single class. Prior data on this class suggests that missing one or more classes lowers a student’s performance, on average, one full letter grade on an exam. Make-up exams are generally not given.

Exercises from the course textbook will be assigned on a weekly basis, but will not be turned in to the instructor. Microsoft Excel has been selected for demonstrating statistical analysis, but if you are knowledgeable with another software package you are welcome to use it instead. You should purchase a user-friendly calculator to use on homework problems and exams. I recommend TI-30X IIS which retails for approximately $13. It is recommended that you bring your textbook and calculator to class.

Cheating will not be tolerated. Students caught altering previously graded work or giving or receiving assistance to/from another student on an exam will receive an F for the course and the incident will be reported in compliance
with executive order 1098. The standards for student conduct are available at http://go.sdsu.edu/student_affairs/srr/conduct.aspx. Please familiarize yourself with these standards.

**Exam Policies:** All exams must be taken at their scheduled time (no make-up exams) and at the course venue unless special arrangements are made through disabled student services. A formula sheet will be made available to students to assist them on their exams. A copy of the formula sheet will be shared via blackboard in advance of the exam but students are only permitted to use the official sheet with the exam, which will be handed out in class on the day of the exam. Exam results will be reviewed during the class subsequent to the exam. Students are required to turn off and put away all cellular phones, PDAs, and pagers for each exam.

**Accessing Course Materials:** Course materials, including lecture notes and case assignments, will be made available via the SDSU blackboard website (blackboard.sdsu.edu). Please check the website regularly and bring printed copies of course materials to class with you to assist in your note taking.

**Grading:** Grades are determined primarily (90% of total weight) by performance on the midterms and final exam. Three to five assignments, each consisting of a case analysis using Excel or some other statistical software package will be given throughout the semester.

Your overall course score is determined by performance on assignments and exams. A weighted average will be calculated using the following weights:

- Assignments: 10%
- Midterm 1: 25%
- Midterm 2: 30%
- Final Exam: 35%

Assignments may include a mix of written and online cases as well as quizzes.

Letter grades will be assigned based on your performance on assignments and exams. The university policy on graduate grades can be found on page 48 of the current policy file available at https://newscenter.sdsu.edu/universitysenate/files/07199-PostedFNL2policy_file_accessible_8_11_16_(4).pdf. The policy states that “Graduate grades shall be: A, superior performance; B, satisfactory performance; C, minimally passing; D, unacceptable for graduate degree credit; and F, failing.” The policy also states the faculty may assign plus and minus grades.

The instructor reserves the right to adjust the weights for the class should circumstances warrant doing so. Students will be notified should this occur.

Homework problems will be assigned throughout the semester. This work will not be turned in for a grade; however, it is often the basis for exam questions. Students are expected to complete as much homework as necessary to ensure they understand the material. Your instructor recommends that you complete every homework problem.

**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.*
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<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topics</th>
<th>Chapter(s)</th>
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<tr>
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<td>1/24</td>
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<td>1, 2, 3</td>
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<td>2</td>
<td>1/31</td>
<td>Introduction to Probability Theory</td>
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<td>3</td>
<td>2/7</td>
<td>Discrete Probability Distributions</td>
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<td>4</td>
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<td>Continuous Probability Distributions</td>
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<td>5</td>
<td>2/21</td>
<td>Sampling Distributions, Confidence Interval Estimation</td>
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<td>6</td>
<td>2/28</td>
<td><strong>Midterm 1</strong></td>
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<td>3/7</td>
<td>Hypothesis Testing</td>
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<td>3/14</td>
<td>Statistical Inference about Means and Proportions with Two Populations</td>
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<tr>
<td>9</td>
<td>3/21</td>
<td>Inferences about Population Variances, Chi-Square Test of Independence</td>
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<td>10</td>
<td>3/28</td>
<td><em>Spring Break – No Class</em></td>
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<td>Analysis of Variance</td>
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<td><strong>Midterm 2</strong></td>
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<td>Simple Linear Regression</td>
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<td>Multiple Regression, Model Building with Regression Analysis</td>
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<td>15</td>
<td>5/2</td>
<td>Special Topics in Statistical Analysis</td>
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**Final Exam**  

Final exam is Tuesday, May 9 from 4pm to 6pm.

*The week-to-week schedule often varies in that certain topics may be started or finished before or after the scheduled date. All exams, however, are generally held on the date specified in the syllabus.*