I. Introduction

BSM 471 – Statistical Methods and Research Design, treats the practical application of research methodology and statistical techniques to inform decisions encountered by business managers.

Decision-making is often described as the most important task of the manager. Today’s managers work in far more difficult environments than did their predecessors, and must make decisions in the context of a rapidly changing world. To do this successfully, managers need to base final decision-making on the best information obtainable. There is little place in the contemporary decision making for guesswork or actions resting solely on unsupported hunches.

This course is designed to provide a framework for making informed decisions, through the application of research methodology. The underlying premise is that decision-making processes are strengthened when the decision maker follows a systematic approach – what is often referred to as the scientific method, translated into steps in the researched process.

The point of view taken in this course is that statistical techniques are tools used in informed decision-making. That is, statistics are of major value as important tools to apply at a critical step in the research process. Therefore, the focus will be on applied statistics, as opposed to statistics as a purely academic subject.

The major objectives of the course are as follows:
1. Understanding basic research methodology.
2. Application of research methodology to business decisions.
3. Use of descriptive and inferential statistics in the application of research methodology.
4. Interpretation of results from statistical analyses.
5. Ability to read and understand research literature in business and management.

II. Methods and Procedures

This course includes the following procedural dimension:

Reading

One textbook will be used. For each class session, students are expected to have read the assigned material and be prepared to participate in discussion and exercises based on that material.

The textbook is: “Statistics: A First Course” - 6th Edition
Authors: Donald H. Sanders & Robert K. Smidt
ISBN: 0072295473 Publisher: McGraw Hill College Division

Class Sessions

Most class sessions will consist of lecturettes, class discussions and class exercises. A team approach will be taken in the class meeting, with students working together on class exercises. Students are encouraged and expected to bring in appropriate work related examples during class discussions.

Discussions and participation are central to the learning process. Sharing of real-world experience reflects a commitment to involvement in learning. Participation in exercises and discussions will contribute a portion to the final grade in the course.

Examinations

The dates of examinations are given in the course schedule. Primarily, examinations will cover material in their respective sections, although some aspects of later exams will draw on material in earlier portions of the course. Exams are designed to determine students’ basic understanding of the material. There will be no need to memorize formulas. Exams will be open book.
**Team Research Projects**

All class members will participate in a team research project. Teams will be formed early in the trimester and will consist of three or four members. While class time will be allocated for teams to meet from time to time, considerable time will also be needed outside of class.

Each team will undertake the study of a business situation in which a decision would be made. The study will require the use of research methods and statistical techniques studied in the course. A written report will be submitted at the final class meeting.

Details for the preparation of the Team Research Project will be distributed later.

**III. Administrative Matters**

**Materials**

In addition to the one textbook, students will need a hand calculator. Of particular value are calculators that have built into them certain statistical routines. Students may choose any calculator they prefer.

**Attendance Policy**

Students are expected to be in class by 6:00 p.m. and stay the duration of each class session. Missing two classes or more will negatively impact a student’s performance and overall grade in class. Leaving early during another student’s class presentation or taking extended breaks will not be tolerated.

On-time attendance at every class meeting is expected. More than three absences results in loss of credit and requires that the course be repeated.

**Assignment Quality**

Written materials must be typed. Statistical presentations (computations, tables and graphs) may be handwritten, provided they are done neatly.

**Office Hours**

The nature of Pepperdine’s program makes it difficult to schedule office hours. I will be available prior to class and, at times, after class. I can meet at other times and places, provided an appointment has been made. Please call me to set up any meetings.
Grading

Grades will be based on the following system:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Examinations</td>
<td>60%</td>
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<tr>
<td>Written Team Project</td>
<td>30%</td>
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<tr>
<td>Participation</td>
<td>10%</td>
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</tbody>
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The following approach will be used:

- A: Scholarly Work
- A-: Superior work
- B+: Very good work
- B: Good work
- B-: Deficient in some areas
- C+: Deficient in many areas
- C: Lack understanding
- C-: Poor work
- D: Very poor work
- F: Failing work
Conduct

“The University expects from all of its students and employees the highest standard of moral and ethical behavior in harmony with its Christian philosophy and purposes. Engaging in or promoting conduct or lifestyles inconsistent with traditional Christian values is not acceptable.

The following regulations apply to any person, graduate or undergraduate, who is enrolled as a Pepperdine University student. These rules are not to be interpreted as all-inclusive as to situations in which discipline will be invoked. They are illustrative, and the University reserves the right to take disciplinary action in appropriate circumstances not set out in this catalog. It is understood that each student who enrolls at Pepperdine University will assume the responsibilities involved by adhering to the regulations of the University. Students are expected to respect order, morality, personal honor, and the rights and property of others at all times. Examples of improper conduct for which students are subject to discipline are as follows:

- Dishonesty in any form, including plagiarism, illegal copying of software, and knowingly furnishing false information to the University.
- Forgery, alteration, or misuse of University documents, records, or identification.
- Failure to comply with written or verbal directives of duly authorized University officials who are acting in the performance of assigned duties.
- Interference with the academic or administrative process of the University or any of the approved activities.
- Otherwise unprotected behavior that disrupts the classroom environment.
- Theft or damage to property.
- Violation of civil or criminal codes of local, state, or federal governments.
- Unauthorized use of or entry into University facilities.
- Violation of any stated policies or regulations governing student relationships to the University.

Disciplinary action may involve, but is not limited to, one or a combination of the alternatives listed below:

**Dismissal** – separation of the student from the University on a permanent basis.

**Suspension** – separation of the student from the University for a specified length of time.

**Probation** – status of the student indicating that the relationship with the University is tenuous and that the student’s records will be reviewed periodically to determine suitability to remain enrolled. Specific limitations to and restrictions of the student’s privileges may accompany probation.” See current GSBM Catalog.

Policy on Disabilities

Assistant for Students with Disabilities

“Students with disabilities, whether mental or physical, are encouraged to contact the Equal Opportunity Office before the academic year begins or soon after classes are in session. This office will assist each student by providing general information about campus facilities and available resources. The office will assist in providing reasonable accommodation to students with disabilities pursuant to applicable laws. Inquiries should be directed to equal opportunity officer- Lauren Breeding,(310) 506-6500. (Students who wish to file a formal grievance should refer to the “Nondiscrimination Policy,” which is listed in the “Legal Notices” section of this catalog.)” See current GSBM Catalog.
<table>
<thead>
<tr>
<th>WEEK NO.</th>
<th>TOPICS</th>
<th>ASSIGNMENT</th>
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<tbody>
<tr>
<td>1</td>
<td>Research Process, and Research Design</td>
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<tr>
<td>2</td>
<td>Research Study Topics, Research Study Examples, Project Proposals</td>
<td>S Ch 1</td>
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<tr>
<td>3</td>
<td>Descriptive Statistics</td>
<td>S Ch 2-3</td>
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<td>4</td>
<td><strong>EXAM #1</strong> Projects Re-visited</td>
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<td>5</td>
<td>Probability</td>
<td>S Ch 4</td>
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<tr>
<td>6</td>
<td>Probability Distributions</td>
<td>S Ch 5 Omit pages 177-179</td>
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<tr>
<td>7</td>
<td>Sampling Estimation</td>
<td>S Ch 6 and 7 Omit pages 276-278</td>
</tr>
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<td>8</td>
<td><strong>EXAM #2</strong> Projects Revisited</td>
<td></td>
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<tr>
<td>9 &amp; 10</td>
<td>Hypothesis Testing</td>
<td>S Ch 8 and 9 Omit pages 344-347; 361-68</td>
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<tr>
<td>11</td>
<td><strong>EXAM #3</strong> Projects Revised</td>
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<tr>
<td>12</td>
<td>Non-Parametric Statistics</td>
<td>S Ch 11 S Ch 13 - Section 13.7 only</td>
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<td>13</td>
<td>Regression and Correlation</td>
<td>S Ch 12 Omit pages 534-551; 562-580</td>
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<td>WEEK NO.</td>
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<td>14</td>
<td>EXAM #4</td>
<td>Projects Revisited</td>
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<td>15</td>
<td>Project Reports</td>
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