Syllabus: BADM 621 Business Research

Instructor

Gerald Blakely, Ph.D.

107 Business & Economics
gerald.blakely@mail.wvu.edu
Voice: (304) 293-7932
Fax: (304) 293-8905

Online Office Hours: Thursday, 7:00 - 8:30 p.m. and by appointment.

Responses to phone calls and emails will normally be within 24 hours. Feedback about assignments will normally be within 48 hours. Feedback on exams and papers will normally be within one week.

Course Description

The primary objective of this course is to expose you to issues involved in business research and statistics. Statistical analysis is important to businesses and provides the foundation for decision making. Dealing with data is an everyday occurrence for business professionals. This course will address how to get information from data and will cover describing data and relationships, probability, confidence interval estimation, and hypothesis testing among other topics.

This course:

- develops skills in data-driven, fact-based decision making,
- develops the ability to critically evaluate research proposals and studies which rely on business research,
- provides a basic understanding of reading and conducting empirical research,
- is a survey of major statistical methods used in business and economics.
Excel Basics

We use Microsoft® Excel throughout this course. Please watch this video for a basic overview.

Excel Basics

(3:16 min. Opens in a new window)

Course Goals

By the end of this course you will:

- Make decisions by a systematic analysis of data and facts rather than just relying on opinion.
- Critically evaluate research proposals, reports, and studies which rely on business research.
- Read, analyze, and conduct empirical business research.

Electronic Texts and Resources

Students must have MS Office 2007 to complete all the assignments, assessments and exercises in this course.

- Module Readings
- StatSoft Electronic Text
- HyperStat Online Textbook
- Basic Statistics Using Microsoft Excel
- Against All Odds
- http://office.microsoft.com/excel/
- http://www.ilir.uiuc.edu/courses/lir593/hlist.html
Grading

Your grade will be based upon your performance in four areas, described below, according to the weights below.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam</td>
<td>40%</td>
</tr>
<tr>
<td>Group Research Project</td>
<td>35%</td>
</tr>
<tr>
<td>Individual Research Project</td>
<td>15%</td>
</tr>
<tr>
<td>Homework/Assignments</td>
<td>10%</td>
</tr>
</tbody>
</table>

Scale

Grades will be based upon the following scale. (Please note that I do award pluses and minuses on grades):

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 90.00</td>
<td>A</td>
</tr>
<tr>
<td>80 - 89.99</td>
<td>B</td>
</tr>
<tr>
<td>70 - 79.99</td>
<td>C</td>
</tr>
<tr>
<td>60 - 69.99</td>
<td>D</td>
</tr>
<tr>
<td>&lt; 60.00</td>
<td>F</td>
</tr>
</tbody>
</table>

Examination

In this course there will be one exam which will cover both the non-statistical research material as well as the statistical material. The exam will consist of objective questions (e.g., true-false, short answer) and statistics problems.

Group Research Project

As part of a small work group, you will conduct a small-scale research project. This project will allow you to utilize some of the research techniques you have learned this semester. A written report (example linked here) and an oral class presentation will be required. Milestones, due dates, and evaluation weight for this project are indicated in the table below. Discussion boards will be set up for each team so that you can coordinate with each other. Teams will be formed at the first meeting.

The project will require that your team develop and administer a questionnaire. The report will consist primarily of descriptive statistics, but statistical testing for sub-group differences may be necessary where sub-group analyses would be warranted. Having a hypothesis or hypotheses would be very unusual.
The report you develop is for your client. I only want a copy of it. The following should be included in your report:

1. an executive summary,
2. the name and contact information (email, phone number, and address) of your client,
3. a copy of your questionnaire appended,
4. a copy of your raw data should be appended, and
5. tables/graphs where appropriate.

Please note that this project does not fall under the definition of research according to the WVU IRB’s policy about research involving human research, however I require that the projects substantially comply with their general guidelines. For more information on the IRB policies pertaining to class projects of this nature, please read their draft policy.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Due Date</th>
<th>Project Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of Human Subjects Ethics Training located at: <a href="http://oric.research.wvu.edu/">http://oric.research.wvu.edu/</a></td>
<td>See calendar</td>
<td></td>
</tr>
<tr>
<td>Upon successful completion of the training your name will be added to the database of individuals who have completed the course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Human Subjects Ethics Training</strong> (7:23 min. Opens in a new window)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please watch this video describing the training.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very rough draft of project submitted for approval</td>
<td>See calendar</td>
<td>10%</td>
</tr>
<tr>
<td>Project proposal finalized</td>
<td>See calendar</td>
<td>10%</td>
</tr>
<tr>
<td>Draft questionnaire design / research design submitted for approval</td>
<td>See calendar</td>
<td>10%</td>
</tr>
<tr>
<td>Basic data analysis strategy submitted for approval</td>
<td>See calendar</td>
<td>10%</td>
</tr>
<tr>
<td>Project report delivered/presented</td>
<td>See calendar</td>
<td>50%</td>
</tr>
</tbody>
</table>
Statistical Application Individual Project

My preference would be for you to find some data, at work or elsewhere, and use that for your project. If that isn't possible, you will be provided with a data set in a substantive management/organizational behavior area. You will prepare a written research report including relevant analysis and discussion. As in the group project, this individual project will allow you to utilize the skills you have learned this semester but on an individual rather than on a group basis. Please see the calendar for the individual project due date.

If you are unable to use data from your work, a few excellent sources of data you might consider are located at the following websites:

- Bureau of the Census
- Bureau of Labor Statistics
- Center for Disease Control
- Bureau of Transportation
- General Social Survey
- State Data
- Journal of Statistics Education Data Archive

Grading criteria, with approximate weightings, for the project are:

<table>
<thead>
<tr>
<th>Grading Criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct citations, references (including format)</td>
<td>10%</td>
</tr>
<tr>
<td>Grammar, sentence structure, spelling, etc.</td>
<td>30%</td>
</tr>
<tr>
<td>Statistical analysis</td>
<td>30%</td>
</tr>
<tr>
<td>Clarity of thought, presentation</td>
<td>30%</td>
</tr>
</tbody>
</table>

Assignments and Quizzes

Please note that I expect you to complete several assignments/quizzes during the course and submit them to me. It is imperative to complete the assignments as it is very difficult, if not impossible, to learn how to compute the statistics by simply reading class material or watching how-to videos. You must work the problems yourself.

These assignments are structured so that they will aid in your learning the material. Thus, you will get feedback, but not necessarily a grade on all assignments. It is almost impossible to learn how to perform statistical work without actually doing it, so please complete the assignments... and the quizzes!
Modules

(3:38 min. Opens in a new window)

Each module will be covered in one week.

1. Module 1 Introduction and the Research Process
2. Module 2 Sampling, Scales, and Questionnaire Design
3. Module 3 Data and Descriptive Statistics
4. Module 4 Probability, Distributions, and Confidence Intervals
5. Module 5 Hypothesis Testing and Chi-Square
6. Module 6 T-Tests, Z-Tests, and One-way ANOVA
7. Module 7 Covariance, Correlation, and Simple Linear Regression
8. Module 8 Multiple Regression and other statistics
9. Exam
   Group Project Presentations
   Individual Projects

Academic Dishonesty

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at http://studentlife.wvu.edu/studentconductcode.html. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.
Social Justice

West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veterans status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304-293-6700).