Dr. Samuel L. Seaman

DESC 603.18

Quantitative Business Analysis

Spring 2013, Session A

Wednesday, 1:00 - 5:00 PM

Malibu Campus

SYLLABUS
Quantitative Business Analysis  
DESC 603.18  
SPRING Trimester 2013, Session A

Day and Class Times: Wednesday, 1:00 – 5:00 PM  
Campus Location: Malibu Campus

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Introduction  
Increasingly, business decisions in all functional areas are based upon sound quantitative analyses using the tools and models of management science. This course will introduce you to those techniques, and urge you to think critically about the decision making process.

Course Description  
The course covers most essential concepts, techniques, and models of management science (including but not limited to decision trees, linear optimization, discrete optimization, network models, and simulation). Students will learn to construct and run these models in a spreadsheet environment.

Course Objectives  
Today’s managers operate within dynamic environments that are constrained by highly competitive markets. To manage well under such circumstances requires both rigorous analytical tools and a sophisticated sense of how to balance the demands of oft-times conflicting constituencies. Using a mix of theory, case studies, and practical laboratory experiences, the course seeks to develop students’ technical skills and their intuition for extracting information from legitimate data sets with an emphasis on the use of this information for structuring managerial decisions. Specifically the course:

1. Challenges students to think analytically about business problems – and to model those problems in a spreadsheet environment.
2. Encourages students to use an integrated approach when making decisions, calling upon their expertise in all other substantive business disciplines.
3. Provides students with an understanding of the theory and analytical tools that can be used to accomplish the goals stated above.

Text  
Grading
Your scores on periodic in-class evaluations (including a final comprehensive evaluation), a trimester long project, and several case presentations will be averaged to determine a final grade in the course. If you miss an evaluation or case presentation because of an excused absence, your grade on the final evaluation will replace the missing score. No makeup evaluations will be given. Weights assigned to each of these components when determining final grades are as follows:

Periodic Evaluations: 90%
Class and Case Participation: 10%

A (95-100), A- (90-94.99), B+ (88-89.99), B (85-87.99), B- (80-84.99), C+ (75-79.99), etc…

Attendance Policy
To be discussed at the first class meeting (Also, see “Grading” section above).

Conduct

This course may require electronic submission of essays, papers, or other written projects through the plagiarism detection service Turnitin (http://www.turnitin.com). Turnitin is an online plagiarism detection service that conducts textual similarity reviews of submitted papers. When papers are submitted to Turnitin, the service will retain a copy of the submitted work in the Turnitin database for the sole purpose of detecting plagiarism in future submitted works. Students retain copyright on their original course work. The use of Turnitin is subject to the Terms of Use agreement posted on the Turnitin.com website. You may request, in writing, to not have your papers submitted through Turnitin. If you choose to opt-out of the Turnitin submission process, you will need to provide additional research documentation and attach additional materials (to be clarified by the instructor) to help the instructor assess the originality of your work.

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.
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.”

**Policy on Disabilities**

**Assistance for Students with Disabilities**
The Disability Services Office (DSO) offers a variety of services and accommodations to students with disabilities based on appropriate documentation, nature of disability, and academic need. In order to initiate services, students should meet with the Director of the DSO at the beginning of the semester to discuss reasonable accommodation. If a student does not request accommodation or provide documentation, the faculty member is under no obligation to provide accommodations. You may contact the Director of Disability Services at (310) 506-6500. For further information, visit the DSO Web site at: [http://www.pepperdine.edu/disabilityservices/](http://www.pepperdine.edu/disabilityservices/).

**Schedule of Classes**
After each class meeting, I will post in Sakai my recommendations for the next class. Those recommendations will suggest pages to be read in the text or supplemental websites, exercises, and case analyses that should be completed prior to attending class. The list below is simply an indication of the general topics to be covered each week. You will find much greater detail in the recommendations.

<table>
<thead>
<tr>
<th>Class</th>
<th>Topics, Readings</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Introduction to Decision Analysis.</td>
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<tr>
<td>Week 2</td>
<td>Decision Analysis (continued) AND Introduction to Modeling and Optimization; Introduction to Linear Programming.</td>
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<tr>
<td>Week 3</td>
<td>Modeling and Optimization in a Spreadsheet Environment.</td>
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<td>Week 4</td>
<td>The Simplex Algorithm and Sensitivity Analysis. Discrete Optimization (Handout).</td>
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<td>Week 5</td>
<td>Simulation Models.</td>
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<td>Week 6</td>
<td>Simulation Models (Continued), Discriminant Analysis.</td>
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<td>Week 7</td>
<td>On Art and Decision Models; Final Evaluation</td>
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