ECON 4530
From Data to Information
Spring-2010

Syllabus

Instructor: Mehmet Kocak
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ECON-4530 is the capstone course for the SAS Certification Program, a series of courses designed to prepare students for analytical careers using SAS Software. The main objective of ECON-4530 is to provide experiences that will give students the opportunity to utilize their analytical and communication skills in solving typical real-life problems. Course projects attempt to emulate real-life situations by putting the student in the role of analytical consultant.

Each student will be given a project with a set of research questions to be addressed based on one or more datasets provided using SAS software. Students will be asked to analyze the data, write a technical report addressing the research questions, and present the results in a PowerPoint presentation.

Several in-class reviews are scheduled. It is expected that students will come fully prepared to discuss their projects and present SAS code, papers, and PowerPoint slides on schedule. It is also expected that students listen to the presentations of their fellow classmates and ask questions, provide comments and suggestions.

Grading for ECON 4530 will be

- 50% for SAS program development
- 20% for the research paper
- 20% for the PowerPoint presentation
- 10% for in-class participation

<table>
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<tr>
<th>Grading Scale</th>
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<tr>
<td>A = 90+</td>
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<tr>
<td>B = 80-89</td>
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<tr>
<td>C = 70-79</td>
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<tr>
<td>D = 60-69</td>
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The instructor is available throughout the term for critique and aid. Consultation with the instructor and especially with fellow classmates is highly encouraged.

Analysis of Data

Write a series of SAS programs to read the assigned datasets, recode elements as necessary, and analyze the data to help answer the research questions. Only SAS coding is acceptable for this course — DO NOT USE ENTERPRISE GUIDE IN THIS CLASS. Employ descriptive and inferential statistics as appropriate. Keep the code simple and modular. Annotate your code with appropriate comments and documentation.

Paper

The body of the analysis report should be up to 2,500 words, appropriately footnoted. The bibliography and appendices are excluded from the word count. Use an accepted style guide and be consistent. Use statistics and appropriate charts and graphs in the text to help the reader understand the data and analysis. Write your report as if it is your first report to your boss in your first job.
Each paper should contain the following.

**Executive Summary**
Here, provide a short summary of the results.

**Introduction**
1. Identify the topic.
2. Describe the objective of the study – what you plan to cover in the paper.
3. Provide the background of the study. Provide literature review if you have done any.

**Examine the Research Questions**

**Research Methods**
1. Provide documentation on the data being used. Describe the various files and what they represent.
2. Method of analysis. What assumptions did you make in manipulating the data structures and omitting defective records if any?
3. Describe the statistics used and why they were pertinent.

**Research Results and a Discussion of What They Mean**
1. Provide results for each study objective and discuss the significance of what was found. Focus on your objectives as described in the introduction.
2. Present aggregated data in tabular form. Use charts and graphs as appropriate to strengthen your points and convey your message.

**Conclusion and Recommendation**
1. Summarize the report and show how you accomplished your objectives.
2. Provide recommendations if appropriate.
3. Discuss limitations of the resources and provide suggestions to improve the project if needed.

**Bibliography (if necessary)**

**Appendices (if necessary)**

**Presentation**

The findings will be presented in a PowerPoint slide presentation of twenty minutes duration. The presentation will be a précis of the research paper. In your presentation, imagine that you are presenting your project to an audience among which there are people who are experts on your project area.

**Academic Integrity and Student Conduct:**

Expectations for academic integrity and student conduct are described in detail on the website of the Office of Student Judicial and Ethical Affairs (http://saweb.memphis.edu/judicialaffairs). Please take a look, in particular, at the sections about “Academic Dishonesty,” “Student Code of Conduct and Responsibilities,” and “Disruptive Behaviors.” I will expect students to be aware of these guidelines and to conduct themselves accordingly.
## Tentative Schedule:

<table>
<thead>
<tr>
<th>When</th>
<th>Where</th>
<th>What to do</th>
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<tbody>
<tr>
<td>Monday, Jan. 25</td>
<td>Fogelman 268</td>
<td>Projects are assigned and datasets are sent.</td>
</tr>
<tr>
<td>01/25-03/15</td>
<td>Communication by e-mail: <a href="mailto:mkocak@memphis.edu">mkocak@memphis.edu</a></td>
<td>You will be working on your project and writing your SAS codes</td>
</tr>
<tr>
<td>Monday, March 15</td>
<td>Fogelman 268</td>
<td><strong>SAS Review.</strong> Each of you will briefly present your project, share your SAS codes, and will ask for questions, comments, suggestions. <em>Each student must attend the session and participate in discussions.</em></td>
</tr>
<tr>
<td>Monday, April 12</td>
<td>Fogelman 268</td>
<td><strong>Report Review.</strong> Each of you will briefly present your paper to the class, and will ask for questions, comments, suggestions. <em>Each student must attend the session and participate in discussions.</em></td>
</tr>
<tr>
<td>Monday, April 19</td>
<td><a href="mailto:mkocak@memphis.edu">mkocak@memphis.edu</a></td>
<td><strong>SAS Code and Report Deadline:</strong> Please send your SAS code and the report paper by 8:30 P.M. on this day; extensions will be given only based on extreme measures.</td>
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<tr>
<td>Monday, April 26</td>
<td>Fogelman 268</td>
<td><strong>Presentations-1:</strong> Randomly chosen first group will present their work. <em>Each student must attend the session and participate in discussions.</em></td>
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<tr>
<td>Monday, May 3</td>
<td>Fogelman 268</td>
<td><strong>Presentations-2:</strong> Randomly chosen first group will present their work. <em>Each student must attend the session and participate in discussions.</em></td>
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