Quantitative Methods for Business, May 2012

**Professor** Scott Stevens

Showker Hall, Room 229

Tel. 568-3060

Email: [stevensp@jmu.edu](mailto:stevensp@jmu.edu)

Website: blackboard.jmu.edu (Contains lots of useful stuff!)

**Office Hours** There’ll be a question period before each of our tests on Friday from 9-9:50. Attendance at the question period is optional. I’m often available for a bit either before or after class as well.

**Required**  Spreadsheet Modeling and Decision Analysis, 6th Edition, by Cliff Ragsdale,

**Textbooks** South-Western College Publishing, 2010. (Available at the JMU bookstore.)

Linear Programming in Plain English, Version 2.1, by Scott Stevens. (Available at the JMU bookstore.)

**Prerequisites** COB 191 and MATH 205, or the equivalent.

**Course** 291 is an introductory course in management science. The overall goal is the

**Description** development of the ability to formulate appropriate models of business situations, to

solve or analyze these models, and to use the resulting information to make better decisions. Topics include linear programming, decision theory, queuing theory, simulation and forecasting.

**Attendance Because of the intensive nature of May session and the difficulty of 291 material for**

**most students, prompt and consistent attendance in this class is mandatory**. Class starts promptly on the hour, and attendance will be taken at that time. If I don't see you, I'll call out your name. If you do not respond, you are absent for the first half of class. At mid-class, we will have a fifteen minute break. After the break, I will again take attendance, following the same procedure. If you do not respond to this call, you are absent for the second half of class. Allow yourself time to arrive at class on time, and don’t be late coming back from break.

It is expected that you will attend all classes; each day of class in June session corresponds to a **week** of class in the regular semester. Recognizing that emergencies can arise, I will understand one full day’s worth of absence or tardiness over the course. Excessive absences may negatively impact your grade.

We’re in a month long marathon, here. Take care of your health.

**Grading** You are guaranteed a grade at least as good as the "standard curve" would give you

(90% - 100% = A, etc.). Grades may be curved in your favor at the end of the semester, if I think it appropriate. *Do not count on a curve*. I give +/- grades only in extremely rare circumstances.

**Breakdown of Grade:**

Exam 1 20%

Exam 2 20%

Exam 3 20%

Exam 4 (Final) 20%

Quizzes 20%

Quizzes will begin almost every class, Monday through Thursday, and will be on the assigned reading, assigned homework, or material discussed in class on the previous day. Generally, these will be a single multiple choice or short answer question. **These questions should be easy if you have done the assigned reading and work, paid attention in class, and reviewed your notes before returning**. Quizzes are graded on a 10 point scale, and on most, you will get either a 10 (correct) or a 0 (incorrect). Occasionally, partial credit may be given. Read assignments carefully and take notes to avoid needlessly getting a 0 on a quiz. I’ll count your top 10 quiz scores and drop the rest. We’ll probably have 13 quizzes. Bring your homework to class, as I may choose to collect a homework assignment in lieu of giving a quiz.

Exams are given on each Friday from 10 AM to 11:30 AM, and cover the material from that week. Don’t wait until Thursday to start studying for the exam. There’s no way you can do it. **In enrolling in this course for May session, you are dedicating yourself to this brief period of intensive study. Conflict exams will not be given.**  ***If you’re not prepared to commit to Friday exams, you’re in the wrong class.***

You course grade may be modified by my subjective evaluation of your class participation. An average level of participation will leave your score unchanged. Exceptionally good or poor participation may modify your course average by up to 4%. You can help your participation evaluation by being prepared for class, asking intelligent questions, answering questions I ask, and taking an active role in the small group work assignments. Apathy, poor preparation, poor attendance, repeated tardiness and inappropriate classroom behavior can only hurt your participation evaluation. Historically, most students have not had a participation modification of their grade.

**Note to graduating seniors, graduate students, students needing to take 300 level classes in the fall, students on academic probation, etc**.: You will not be given any special consideration in the assignment of course grades. If you cannot afford to receive a poor grade in this course, make sure that you apply yourself to the degree necessary to get the grade that you desire. There are no "last week reprieves".

**Do you want this to be the last semester you take COB 291?** If you do, here’s some free advice that I strongly advise you to take to heart.

**Do all assigned homework and do it on time!** In some ways, quant is a "skills" course, and as with any skill, extensive practice is a necessary step in mastering it. Watching me do it or reading others’ solutions will not cut it. **Most of you will be spending about 8 hours a day on quant, in class and out, Monday through Thursday,** as well as doing some work on Friday or over the weekend. Treat it as a full time job.

**Form a study group**. Think about law school, med school, or any place where people must learn a great deal of material in a limited amount of time, and you’ll find them forming study groups. I’d encourage you to leave class, go to lunch with you group, then spend the afternoon working with them. If you would like to consider joining such a group and need help finding other people, see me. I can put you in contact with others who are also in your situation. From that point, you may proceed as you see fit.

**Understand what you are doing!** The techniques developed in this course are useful and commonly used in business, but more importantly, we are helping you learn to think and analyze in new ways. Don’t shy away from what may seem hard or unnatural to you. The tests will require you to understand concepts, not just mechanically apply procedures. Be prepared for that.

**Assignment List**

The table below is straightforward. All reading assignments begin and end at section breaks. LPPE is Linear Programming in Plain English. RAG is the Ragsdale text. As an example, LPPE 2.1 means problem **P**2.1 in the BACK of the LPPE text. ***You are expected to answer the review (R) questions at the end of each chapter of LPPE orally as part of your reading assignment****.* Problem RAG 3.30 means problem 30 at the end of Chapter 3 of Ragsdale.

I can’t overemphasize the reading. If you don’t do it on time, you’re going to be throwing away 20% of your course grade (on quizzes), and that’s just for starters. You **must** have a basic understanding of our material before you walk into class—you’ll never have time to assimilate the material if you don’t.

If we fall behind schedule or leap ahead, some assignment dates may be changed. If an assignment is postponed, you will be expected to complete it after the material has been discussed.

**Date To prepare for class, To master the last meeting’s material,**

**before the date listed READ… before the date listed DO…**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tuesday | May 15 | LPPE up through page 2-24. Skim RAG Chapter 3 (starting with section 3.9) for examples to use as inspiration. Ignore Excel for now. | LPPE 2.1, 2.3 - 2.9 (that’s 2.3 TO 2.9), and 2.13. Note that all LPPE problems are in the BACK of the pamphlet! | formulate  only! |
| Wednesday | May 16 | LPPE 3-1 to 3-15. | LPPE 2.2, 2.10, 2.11, 2.14, 2.15. |
| Thursday | May 17 | LPPE 4-1 to 4-9 and 4-13 to 4-17. Read RAG section 3.6. | LPPE 3.1 through 3.11. LPPE 4.1 through 4.4 |
| Friday | May 18 | Exam at 10 AM Friday | Optional Answer Session at 9 AM |
| Exam 1 does not include Chapter 4 | | | |
| Monday | May 21 | Skim RAG Chapter 3 if you are unclear on using Excel for LPs. | LPPE 4.5 to 4.10. (Problem 4.10 is especially important. DO IT!) |
| Tuesday | May 22 | LPPE 5-1 to 5-25 | LPPE 4.11 to 4.16. (All used later!!!) |
| Wednesday | May 23 | LPPE 6-1 to 6-11 | LPPE 5.1, 5.3 through 5.12 |
| Thursday | May 24 | LPPE 7-1 to 7-25 | LPPE 6.2, 6.3. 6.1 is optional. |
| Friday | May 25 | Exam at 10 AM Friday | Optional Answer Session at 9 AM |
| Exam 2 covers LPPE Chapters 4, 5, and 6 | | | |
| Monday | May 28 | Memorial Day—No Class |  |
| Tuesday | May 29 | RAG sections 14.0 to 14.5, 14.9, 14.11 | LPPE 7.1- 7.3, 7.5, 7.6 |
| Wednesday | May 30 | RAG sections 14.8, 14.13, 14.14 | LPPE D.1 through D.8 |
| Thursday | May 31 | RAG sections 13.0 to 13.4 | LPPE D.9, D.10 |
| Friday | June 1 | Exam at 10 AM Friday | Optional Answer Session at 9 AM |
| Exam 3 does not include Chapter 13 | | | |
| Monday | June 4 | RAG sections 13.5-13.12, skip 13.8. | Use Q software to do RAG 13.2, 13.6-13.9, 13.14, 13.17, 13.20 (note 1 day = 0.2 week) |
| Tuesday | June 5 | RAG sections 12.1 to 12.18 | RAG 12.3, 12.4, 12.5 |
| Wednesday | June 6 | RAG sections 11.0 through 11.7 | RAG 12.8, 12.9, 12.10 |
| Thursday | June 7 | RAG section 11.8, 11.10, 11.15, 11.16, 11.18, 11.19 | RAG 11.4, 11.5, 11.6, 11.8, 11.10a-d, 11.15 (all in Excel) |
| Friday | June 8 | Exam at 10 AM Friday | Optional Answer Session at 9 AM |
| Exam 4 is not comprehensive | | | |