This exam will cover all assigned readings, exercises, and class discussions since the first exam.

The exam will consist of 40 questions, the same as the first exam. Most of these will be multiple-choice; there will be a problem set (not multiple-choice) on forecasting. The problem set will have about eight or so questions (included in the total of 40—all others will be multiple choice). All questions are worth the same number of points (4 yielding a total of 160 points).

Regarding preparation for the exam, I hope that you have been following my recommendations on page four of the syllabus.

I am sometimes asked if emphasis should be placed on the text or the PowerPoint files. My answer is both. The PowerPoint files reflect the key points; the text provides the explanations.

What else can you do?

LearnSmart: for the chapters from the Jacobs text, go back through LearnSmart (which is something that you should have been doing all along—the structured repetition provided by LearnSmart will help most people).

Also for the Jacobs chapters, look at the list of learning objectives at the start of each chapter. Write a short paragraph about each. Then, compare what you have written to the “Concept Connections” presented at the end of each chapter. Does your statement pretty much match what is shown in the text? (Do not try to memorize what is presented in the text; memorization will not promote understanding.)

As you go through the Jacobs chapters, make note of the “key ideas” shown in the margins.

In addition, “Key Terms” are also listed in “Concept Connections”. Write definitions to these terms in your own words. Then compare what you have written to the text definitions. Did you capture the essential meaning? (Again, don’t try memorizing. You’re more likely to be able to recall the meaning of a term if it’s in your own words.)

For the chapters from the Bordoloi/Fitzsimmons text, you can do something similar. Each chapter begins with a list of Learning Objectives. Unlike the Jacobs chapters, there are no summary statements at the end of the chapter. So, write a short paragraph for each, and then compare what you have written to the content in the chapters. Have you captured the fundamental ideas?

At the end of each Bordoloi/Fitzsimmons chapter is a list of key terms with definitions. Write down a list of the terms, without the definitions. Without looking at the book, write the definitions in your own words and then compare to the text’s definitions. Have you captured the essential meaning?

I do not expect you to memorize the exact, textbook definitions of terms. If you can define key terms in your own words, and your definition captures the essence of the textbook definition, then you should be OK.
Do not memorize formulas. Any formulas that you need will be provided. You just have to remember how to use them. Fair enough?

When you think that you are ready, try some self-quizzing.

To begin with, turn to the detailed table of contents at the beginning of the text. For each chapter that will be on this exam, try writing a short paragraph about each topic and sub-topic? Does what you have written capture the key ideas of each topic and sub-topic?

Next, go through the set of sample exam questions that are posted in Modules. These are questions that I have previously used in exams. These will give you a sense of how I write questions. Note that some of my questions about terminology and concepts use examples (in the question or the answer choices) rather than the actual definition. These include a sequence of multiple-choice questions for a project management problem (again, formatted as you will see on the exam).

This set will also include a forecasting problem set using the same format as will be used on the exam.

Also, go through the multiple-choice quizzes for the Bordoloi/Fitzsimmons chapters. These are found in the student web site for Bordoloi/Fitzsimmons; the link to this site appears in the Module for this exam.

Here are some additional comments by chapter.

**Jacobs 4, Project Management.** There will be no questions or problems on any of the material beyond page 83, except for crashing. The procedure for crashing is presented in example 4.3 on pages 87-9, and solved problem 3 on pages 99-100. A project management problem will be on the exam in a multiple-choice format, as is shown in the set of sample exam questions. This problem will include crashing questions. You will be provided with a complete set of formulas.

**Jacobs 12, Six Sigma Quality.** You do not need to know the content of exh. 12.1. You will not be asked to calculate DPMO (page 214).

**Jacobs 13, Statistical Quality Control.** You will not be asked to calculate process capability ratios or indexes; you will need to understand their meaning. You will not be asked to construct SPC charts. You will need to be familiar with the different types of charts and how to interpret them.

**Bordoloi/Fitzsimmons 6, Service Quality.** Some of this chapter repeats material from Jacobs 12 and 13 (in particular, pages 525-30). As such, you should focus on the concepts that are specific to services. Key concepts are:
- The idea of pairing an expectation with a perception from the perspective of the customer (page 515)
- Gaps in service quality (page 515-20)
- The SERVQUAL concept (page 515); and look at the example provided at the student web site
- The “walk-through audit” (page 516-20)
- The “unconditional service guarantee” (pg. 530-2)
- The concept of “service recovery” (pgs 532-6).

**Jacobs 18, Forecasting.** Remember that any forecasting formulas that you will need will be provided (but you do need to remember what to do with them). There will be no calculations involving the *simple moving average* (equation 18.1 on page 291), the *weighted moving average* (equation 18.2 on
page 293), exponential smoothing with trend (pages 295-6), linear regression analysis (pages 297-9),
or decomposition using least squares regression (pages 303-5). You do need to understand the use of
these methods. Likewise with Causal Forecasting (pages 308-10), you only need to understand how
this method can be used. Remember the discussion of forecast error and the in-class exercise, which
utilized the tracking signal. Also, be familiar with the concept of forecast bias, which was discussed
during the second forecasting lecture. You will be required to calculate basic forecast error, (defined on
page 305) and cumulative forecast error. You will not be required to calculate the MAD or the tracking
signal, although you will be expected to understand/interpret these measures. There will be an extra
credit problem, at the end of the exam, which will involve calculating MAD.