

---

NEW YORK UNIVERSITY | ROBERT F. WAGNER  
GRADUATE SCHOOL OF PUBLIC SERVICE

PADM-GP. 4315

*ADVANCED FINANCIAL AND IMPACT MODELING  
FOR NONPROFITS AND SOCIAL ENTERPRISES*

---

**SPRING 2018**

*syllabus as of 10/10/17*

**COURSE INFORMATION**

Class sessions

Seven sessions. 6:45pm – 8:25pm on February 8, February 22, March 1, March 29, April 5, April 19, and May 3  
Location: TBD

**INSTRUCTORS**

Instructor	Email	Office Hours
Warner Fite	<a href="mailto:warner.fite@nyu.edu">warner.fite@nyu.edu</a>	e-mail for appointment

**COURSE DESCRIPTION**

Increasingly, as the field of impact investing develops worldwide, leaders in the social field are adopting selected tools from their counterparts in the private sector. One of the most widely-used – and useful tools – is the spreadsheet-based, projection model of an individual enterprise. This course focuses on modeling tools applicable to nonprofit organizations, social entrepreneurs and other practitioners to develop business strategies and funding approaches, including market-based funding, to scale their work.

**LEARNING OBJECTIVES AND COURSE STRUCTURE**

This course aims to provide students with the skills necessary to both create financial models in Excel and to use them as tools for assessing the social returns (impact) and financial characteristics of nonprofit organizations and social enterprises. Students will learn to build and tailor the models that they create to the operating characteristics – and operating risks (sensitivities) – of a specific organization. They will also learn to apply financing tools and investment analyses to understand possible funding strategies and to communicate their detailed, quantitative findings in a persuasive and accessible way.



In the course, each student will build a complete financial model for a specified social enterprise (Gone Rural) through a sequence of weekly assignments. There will also be a Final Practical Exam in which students will have a fixed period of time in which to use their models to analyze and present the effect of changes in key variables upon the projected financial performance and impact of the organization.

## COURSE READINGS AND MATERIALS

The readings, cases and other material for the course will come from the following sources:

### 1. Textbook – required

Samonas, Michael (2015). *Financial forecasting, analysis, and modeling: a framework for long-term forecasting*. Chichester, U.K.: John Wiley & Sons Ltd. This text contains a detailed walk-through of creating a financial projection model and creating scenarios using some of Excel's more advanced features. Course texts can be obtained from the NYU Bookstore and online sources such as Amazon.

### 2. Textbook – optional

Tjia, John S. (2009). *Building Financial Models: The Complete Guide to Designing, Building and Applying Projection Models*. (Second Edition) New York: McGraw Hill. This provides a more basic version developing a financial model and has simpler walkthroughs. Because it was published in 2009, however, it does not reflect some features of the latest releases of Excel.

### 3. Laptop computer – required

Please bring your laptop to each class, and of course be sure that your computer can connect to the NYU wi-fi network while you are in class. As electrical outlets in classrooms are not often in convenient locations, please be sure your computer is fully charged before each class.

### 4. Microsoft Excel 2010 or later (or Excel for Mac 2011 or later) including Solver Add-in – required

Please be sure that you have a properly installed and functioning version of Excel 2010 or later (Windows computers) or Excel for Mac 2011 or later and that you have installed the Solver add-in.

- Solver is available in Excel 2010 and later for Windows (<https://support.office.com/en-us/article/Load-the-Solver-Add-in-612926fc-d53b-46b4-872c-e24772f078ca>)
- and in Excel for Mac 2011 and later (<https://support.microsoft.com/en-us/help/2431349/how-to-find-and-install-data-analysis-toolpak-or-solver-for-excel-for>).

You may also want to install the Analysis Toolpak that is available in Windows versions of Excel as well as in Excel for Mac 2016. Free third party versions of the Analysis Toolpak for Excel for Mac 2011 can be found using the link above.

### 5. NYU Classes

NYU Classes will be used to post readings and other items to support class discussions, assignments, and the final practical exam. Assignments will be found on NYU Classes throughout the semester and should be submitted there as well. Students are encouraged to check NYU Classes frequently.

### 6. Financial Calculator free app – required

Students should download one of the free smartphone apps that duplicate the functions of the HP-12C or similar financial calculator (such as ifree Touch Fin financial calculator) as a back up and quick way to check calculations in Excel. There is no need to purchase an actual calculator.

## PREREQUISITES AND COURSE PREPARATION

### Prior Coursework

There are three required course prerequisites:

1. Completing (or placing out of) either (a) Financial Management for Public, Nonprofit, and Health Organizations (CORE-GP.1021) or (b) Financial Decision Making and Management (EXEC-GP.2141);
2. Completing Fundamentals of Accounting (PADM-GP.4130);
3. Completing (or taking concurrently) at least one of (a) Managing Financial and Social Returns of the Social Enterprise (PADM-GP. 2312), (b) Financial Management for Global Nonprofit Organizations (PADM-GP. 2142), or (c) Social Impact Investment (PADM-GP. 2311).

Students may also find *Corporate Finance and Public Policy* (PADM-GP. 2147) helpful, but that course is not a required prerequisite. Students who have questions about the prerequisites or who feel that they otherwise have the appropriate background for the course should contact the professor as soon as possible.

### Microsoft Excel

Because the course focuses on creating and using financial models in Microsoft Excel, it is important for students to have a solid foundation with this program. We will be using Excel from the outset and the course will be teaching the application of Excel to financial modeling, not Excel itself, and as the semester proceeds we will be using increasingly advanced features. That said, you do not have to be a seasoned Excel master to succeed, but at a minimum you will need to be comfortable with:

- Creating workbooks and worksheets;
- Using Excel to organize data into well-formatted tables and other reports, and to analyze that data using Excel's basic calculation functions (especially including cell formatting and relative / absolute cell references);
- Some of the more intermediate-level functions in Excel such as =IF, =MAX, =MIN, =NPV, =IRR, =AVERAGEIF, =HLOOKUP, =VLOOKUP, etc.;
- Creating and printing (with proper formatting) meaningful and informative charts and graphs with strong visual depictions of data and relationships between financial variables.

Students who are unsure of their Excel skills will find that advance preparation in those areas is worth the effort and will pay off throughout the course. There are Excel workshops available at Wagner as well as other sources, and a number of Lynda.com tutorials (free through your NYU logins) may also prove helpful:

- Depending on your Excel version
  - [Excel for Mac 2016 Essential Training](#)
  - [Excel 2016 Essential Training](#)
  - [Excel 2013 Essential Training](#)
  - [Excel 2010 Essential Training](#)
  - [Up and Running with Excel 2010](#)
- REQUIRED (depending on your Excel version)
  - [Excel for Mac 2016: Charts in Depth](#)
  - [Excel 2016: Charts in Depth](#)
  - [Excel 2013: Charts in Depth](#)
- REQUIRED (depending on your Excel version)
  - [Excel 2016: Advanced Formulas and Functions](#)
  - [Excel 2013: Advanced Formulas and Functions](#)
  - [Excel 2010: Advanced Formulas and Functions](#)
- LEARN MORE [And many more](#)

## Brief Online Survey

There is a brief online survey to be taken before the first class session (please complete it by no later than January 30). The survey can be found at <https://nyu.qualtrics.com/>\_\_\_\_\_ and can be done from either your computer or smartphone. The survey should take no more than 10 minutes.

## COURSE REQUIREMENTS AND GRADING

Final grades will be determined by the following course components. Completed assignments should be submitted through the Assignments section of the course site on NYU Classes and always include both (a) solutions / reports in *pdf format* and (b) any applicable Excel workbooks. File names should always include the student's name as well as the assignment name or number.

- **Individual Class Participation (15%)** includes presence, promptness, preparation, and engagement. Students are expected to attend all classes (attendance will be taken) and to be on time; attendance / tardiness issues will affect your class participation grade. Any student who misses more than two classes will receive a "0" on this portion of the course grade. A number of the "Preparation" items for individual classes include in-class deliverables that will count towards your class participation grade. The use of electronic devices other than for taking notes is strongly discouraged: it prevents you from being fully present and can be very distracting to your colleagues.
- **Individual Assignments (35%)** will be due weekly. Through completing the assignments over the term of the course, students will construct a complete financial model for a social enterprise.
- **Practical Exam Quizzes (10%)** will be conducted in class twice during the semester (Classes 3 and 5). Students (working individually) will be asked to use their models to rapidly (within 10 to 15 minutes) develop and turn in a solution to a specified sensitivity exercise. These will be graded pass / fail and are intended to demonstrate the value of careful model construction.
- **Final Practical Exam (40%)**  
The final deliverable will be an exercise in using the financial model that each student has created in a simulation of a real life investment exercise. This exercise will be administered on the "Tests & Quizzes" section of the course site on NYU Classes and requires you to use your financial model to assess, analyze and present the impact of changes in key variables upon Gone Rural's likely financial and impact performance. The exercise will be timed for a maximum of three hours (which must be in one session). Students may complete the exercise at any point from May 4 to May 13.

All assignment deadlines should be taken as firm except in the case of unavoidable and unanticipated circumstances. Because the course sequence guides you through creating a financial model, course work is cumulative so it is very important not to fall behind. Again, because of the volume of assignments to be submitted by the class as a whole, it is important for each assignment to be submitted as a well organized, well-formatted *pdf file* (printing to a pdf from Word and Excel is a fairly straightforward process) as well as in Excel form (your model) for troubleshooting as necessary. Because clarity of presentation is important in presenting the results of financial and impact models, formatting will be part of the grading rubrics.

## ACADEMIC INTEGRITY

Students are reminded that they have signed an Academic Oath at NYU Wagner and they are bound by this oath and the principles of NYU's and Wagner's academic codes. While peer engagement can aid learning and is encouraged, all models, assignments, and practical exams are expected exclusively to be students' own original work. You should never let another person work in or change your model, nor should you ever work in anyone else's model. This includes the exchange of pages, exhibits, and cell references. Please review the details of Wagner's expectations on academic integrity here: <http://wagner.nyu.edu/portal/students/policies/code> .

## COURSE CALENDAR

Class	Date	Class Topics / Cases	Assignments Due
	1/30		<b>Online pre-course survey at <a href="https://nyu.qualtrics.com/">https://nyu.qualtrics.com/</a></b>
1	2/8	A. Course Introduction B. Overview and Best Practices for Using Excel to Create Financial Models C. Accounting for Financial Modeling D. Introduction to Gone Rural	
	2/18		<b>Assignment #1 due</b>
2	2/22	A. Review of Assignment 1 B. Gone Rural's Operating Characteristics C. Modeling and Projecting the Income Statement	
	2/27		<b>Assignment #2 due</b>
3	3/1	A. Recap of Income Statement Modeling and Assignment 2 B. Practical Exam Quiz 1 C. Modeling Gone Rural's Use of Working Capital D. Modeling Gone Rural's Investment in Fixed Assets E. Cash Flow Statement I	
	3/23		<b>Assignment #3 due</b>
4	3/29	A. Review of Practical Exam Quiz 1 B. Recap of Balance Sheet Modeling and Assignment 3 C. Bringing the model together: Consolidations, Opening Balance Sheet, Capitalization, and the "Plug" D. Cash Flow Statement II	
	4/2		<b>Assignment #4 due</b>
5	4/5	A. Review of Consolidations, Opening Balance Sheet, Capitalization and Assignment 4 B. Practical Exam Quiz 2 C. Funding the Enterprise, Capitalization, and Investment Returns D. Gone Rural and Social Impact	
	4/16		<b>Assignment #5 due</b>
6	4/19	A. Review of Practical Exam Quiz 2 B. Review of Financial and Impact Modeling and Assignment 5 C. Gone Rural's Business and Impact Drivers – For What Should Investors and Managers Plan? D. Benchmarking and Projection Assumptions E. Setting up Sensitivity Analyses	
	4/30		<b>Assignment #6 due</b>
7	5/3	A. Review of Sensitivity Analyses and Assignment 6 B. Data Visualization: Turning Information into Insight C. Organizing Scenarios and Finalizing Your Dashboards D. Wrap-Up and Conclusion	
	5/4-5/13		<b>Final Practical Exam in Financial and Impact Sensitivity Modeling</b>

**SESSION 1**

**FEBRUARY 8**

**Pre-course survey**

Due January 30 – this should take about 10 minutes

At [https://nyu.qualtrics.com/\\_\\_\\_](https://nyu.qualtrics.com/___) - you can use your computer or smartphone

**A. COURSE INTRODUCTION**

Students and the professor will share expectations and goals and review the syllabus / overview of the course.

**B. OVERVIEW AND BEST PRACTICES FOR USING EXCEL TO CREATE FINANCIAL MODELS**

We will discuss the goals and uses of various types of financial models and the role of a projection model not only in understanding the financial performance of a social enterprise but also as a guide to strategy and financing. We will also discuss best practices for creating and organizing complicated Excel models.

**PREPARATION**

- Samonas text, Chapter 1
- [NYU Classes] Tjia text, Chapter 2
- [NYU Classes] Spreadsheet Standards Review Board (2016). *Best Practice Spreadsheet Modeling Standards*. Version 7.2
- [Optional] Tjia text, Chapters 1 and 3
- [NYU Classes - Optional] Spreadsheet Standards Review Board (2016). *Best Practice Spreadsheet Modeling Standards: Commentary and Examples*

**C. ACCOUNTING RECAP FOR FINANCIAL MODELING**

We will very briefly review the organization of the three major financial statements with an eye towards using the relationships between them in creating a financial model. This should be immediately familiar from students' work in CORE 1021 and PADM-GP.4130.

**PREPARATION**

- Samonas text, Chapter 2
- [Optional] Tjia text, Chapter 4

**D. INTRODUCTION TO GONE RURAL**

Our work this term will focus on Gone Rural. This social enterprise is a Swaziland-based producer, wholesaler, and retailer of handicrafts on the verge of making decisions about future strategy and financing. We will discuss Gone Rural's mission and objectives along with the key elements of its business model. Over the course of the term, students will each build a financial and impact model reflecting these elements that can be used to evaluate potential financing possibilities from the perspectives of both Gone Rural and prospective impact investors.

**PREPARATION**

- [NYU Classes] Perold, Andre F. (2010). *Gone Rural*. Harvard Business School Case Study N9-211-016. Boston: Harvard Business School Press. The case is also available at <http://www.gbfund.org/wp-content/uploads/2014/11/Gone-Rural-Case-Study.pdf>
- [NYU Classes] Gone Rural Financial Statements supplement

**SESSION 2**

**FEBRUARY 22**

**Assignment #1:**

**(Convert Gone Rural Financials into Excel format) Due February 18 by 11:55 pm via NYU Classes**

**A. REVIEW OF ASSIGNMENT 1**

**B. GONE RURAL'S OPERATING CHARACTERISTICS**

Before we can model Gone Rural's operations, we must first understand the factors that underlie its performance. What are the major financial and impact drivers of each of the organization's lines of business?

**PREPARATION**

- Please review the Gone Rural case and be prepared to bring to class a list of five major drivers of the organization's operating or impact performance. What tradeoffs do you see, and how might we think about modeling them?

**C. MODELING AND PROJECTING THE INCOME STATEMENT**

We will start with the income statement and work on using the historical financial statements that were created in Assignment 1 as a foundation for projecting the income statement for each of Gone Rural's business segments as well as for its central administrative operations. We will also discuss putting into place from the outset the practice of using input and output areas to create a dashboard that communicates insights generated by financial and impact models.

**PREPARATION**

- Samonas text, Chapter 3 (Sections 3.1 through 3.4 only), Chapter 4 (Sections 4.1 through 4.4 only)
- [Optional] Tjia text, Chapter 10
- [NYU Classes] Holden, Craig W. *Excel Modeling in Corporate Finance (Fifth Edition)* Boston: Pearson, 2015. Chapter 17.

**SESSION 3**

**MARCH 1**

**Assignment #2**

**(Live Income Statement Model)**

Due February 27 by 11:55 pm via NYU Classes

**A. REVIEW OF INCOME STATEMENT MODELING AND ASSIGNMENT 2**

**B. PRACTICAL EXAM QUIZ 1**

In Practical Exam Quiz 1, students will use the income statement models they have created in Assignment 2 to assess a (small) number of sensitivity cases regarding Gone Rural's potential operations. This will emphasize the value of careful construction of models and dashboards. The Quiz will be graded pass/fail and students must have their computers and online wi-fi access to NYU Classes in class in order to take the quiz. (Please be sure your computer is charged before class.)

**C. MODELING GONE RURAL'S USE OF WORKING CAPITAL**

Understanding an organization's working capital cycle is vital to being able to analyze and model its future liquidity needs.

**PREPARATION**

- Review the Gone Rural case and be prepared to discuss the major drivers of its working capital needs and the differences between the organization's wholesale and retail operations.
- [NYU Classes] Richards, Verlyn D. and Eugene J. Laughlin. "A Cash Conversion Cycle Approach to Liquidity Analysis." *Financial Management* 1980.
- [NYU Classes] Cagle, Corey S., Sharon N. Campbell and Keith T. Jones. "Analyzing Liquidity Using the Cash Conversion Cycle." *Journal of Accountancy*. May 2013.
- Samonas text, Chapter 3 (Section 3.5 only) and Chapter 4 (Section 4.6 only)

**D. MODELING GONE RURAL'S INVESTMENT IN FIXED ASSETS**

Most organizations need to invest in fixed assets – buildings and equipment – in order to maintain their operations. In this module, we review ways to add capital expenditures and depreciation to financial models.

**PREPARATION**

- Please review the Gone Rural case and be prepared to discuss the organization's needs and opportunities to invest in fixed assets.
- Samonas text, Chapter 4 (Section 4.5 only)

**E. CASH FLOW STATEMENT I (OPERATING AND INVESTMENT ACTIVITIES SECTIONS)**

The Cash Flow Statement is the third of the major financial statements and can be derived from the other two. Adding this statement to a financial model is a straightforward process.

**PREPARATION**

- Samonas text, Chapter 3 (Section 3.7 only)
- [Optional] Tjia text, Chapter 12



**SESSION 4**

**MARCH 29**

**Assignment #3**

**(Modeling of the Balance Sheet, ROA, RONA)**  
Classes

Due March 23 by 11:55 pm via NYU

**A. REVIEW OF BALANCE SHEET MODELING AND ASSIGNMENT 3**

**B. BRINGING THE MODEL TOGETHER: CONSOLIDATIONS, OPENING BALANCE SHEET, CAPITALIZATION AND THE “PLUG”**

This module will demonstrate how to add the missing pieces that connect the income statement and balance sheet to create a fully functional projection model. The creation of an opening *pro forma* balance sheet will allow us to model capital structure alternatives as well as to consider alternatives with respect to investments in Gone Rural’s two business units. Financial statement projection models require “plugs,” self-balancing entries to ensure that the accounting and sources of uses of funds remain in equilibrium.

**PREPARATION**

- Samonas text, Chapter 3 (Section 3.6 only)
- [Optional] Tjia text, Chapters 8 and 9

**C. MODELING THE CASH FLOW STATEMENT II (FINANCING ACTIVITIES SECTION)**

With the capitalization section of the balance sheet now complete, we can add the Financing Activities section of the Cash Flow Statement to our projection models and create the first of a series of error checking functions into the models.

**PREPARATION**

- Review Samonas text, Chapter 3 (Section 3.7 only)
- [Optional] review Tjia text, Chapter 12

**SESSION 5**

**APRIL 5**

**Assignment #4**

**(Opening B/S, Capitalization)**

*Due April 2 by 11:55 pm via NYU Classes*

**A. REVIEW OF CONSOLIDATIONS, OPENING BALANCE SHEET, CAPITALIZATION, AND ASSIGNMENT 4**

**B. PRACTICAL EXAM QUIZ 2**

In Practical Exam Quiz 2, students will use the investment and impact measures added to their models in Assignment 4 to assess a (small) number of potential investment cases. This will again emphasize the value of careful construction of models and dashboards. The Quiz will be graded pass/fail and students must have their computers and online access to NYU Classes in class in order to take the quiz. Please be sure your computer is charged before class.

**C. FUNDING THE ENTERPRISE, CAPITALIZATION, AND INVESTMENT RETURNS**

We will consider some of the criteria for creating financing strategies: adequate operating liquidity, sufficient investment capital, an organization's ability to manage debt service, and appropriate prospective returns for impact investors.

**PREPARATION**

- Samonas text, Chapter 5
- [NYU Classes] Allman, Keith A. and Ximena Escobar de Nogales (2015). *Impact Investment: A Practical Guide to Investment Process and Social Impact Analysis*. Hoboken: John Wiley & Sons, Ltd., Chapter 3 (pp. 95 – 128 only)

**D. GONE RURAL AND MEASURING SOCIAL IMPACT**

The analysis of prospective social returns should receive as disciplined scrutiny as does that of financial returns. Just as we have considered parameters that drive Gone Rural's financial performance, we will identify those parameters most important to its social impact performance. Using approaches that will be familiar from PADM. 2311 and / or PADM. 2312 (both measurements and methodologies such as efficiency and ROI), we will discuss adding impact assessments to the projection models, honing in on those methods most suitable for Gone Rural. We will also begin to identify tradeoffs that exist between financial performance and social impact.

**PREPARATION**

- [NYU Classes] Clark, Catherine, William Rosenzweig, David Long and Sara Olsen (2004). *“Double Bottom Line Project Report: Assessing Social Impact in Double Bottom Line Ventures.”*
- [NYU Classes] Global Impact Investing Network (2016). *“IRIS 4.0 Taxonomy.”* (Excel spreadsheet). IRIS is a measurement system designed for investors that identifies specific impact metrics and will be familiar from. You should review the spreadsheet and determine (and incorporate into your model) those impact metrics that seem most appropriate to Gone Rural. You can learn more about IRIS at <https://iris.thegiin.org/about-iris> . Please bring a list of at least five metrics or measurement methodologies (from IRIS or from your previous work / elsewhere) to class.

**SESSION 6**

**APRIL 19**

***Individual Assignment #5***

***(Financial Returns and Impact Modeling)***

*Due April 16 by 11:55 pm via NYU Classes*

**A. REVIEW OF FINANCIAL AND SOCIAL IMPACT MODELING**

**B. REVIEW OF ASSIGNMENT 5**

**C. GONE RURAL'S BUSINESS AND IMPACT DRIVERS – FOR WHAT SHOULD INVESTORS AND MANAGERS PLAN?**

The creation of a projection model and its “base case” is only the first step in using it in a robust way to understand the performance of an organization under differing conditions. As the first step to creating sensitivity analyses, we will discuss key uncertainties that may influence Gone Rural’s future performance both in terms of financial performance and impact.

**PREPARATION**

- Review the Gone Rural case and bring to class a list of seven factors that influence Gone Rural’s financial and impact performance as well as one example of a factor that creates a tradeoff between the two.

**D. BENCHMARKING AND PROJECTION ASSUMPTIONS**

A model is only as good as the quality of its inputs (“garbage in, garbage out”). Thus, developing appropriate projection parameters – the assumptions that drive the forecasts – is paramount. In this module, we will look at using historical performance, reasoned expectations, and comparable organization performance as benchmarks for these inputs.

**PREPARATION**

- Prior to class, each student will be assigned an input variable parameter for which to develop a summary benchmarking assessment.

**E. SETTING UP SENSITIVITY ANALYSES**

Excel includes many tools to streamline and guide the process of sensitivity analysis. Here, we will learn how to use data tables, the goal seek function, tornado charts (a visualization of the relative importance of assumption variables) and other tools to deploy Excel’s capabilities to our projection model. We will also discuss the importance of considering social impact explicitly – not only financial goals.

**PREPARATION**

- Samonas text, Chapter 6
- Practice creating data tables, using goal seek, and creating tornado charts before class.

**SESSION 7**

**MAY 3**

**Individual Assignment #6  
(Scenarios and Sensitivities)**

*Due April 30 by 11:55 pm via NYU Classes*

**A. RECAP OF CREATING SENSITIVITY SCENARIOS AND ASSIGNMENT 6**

**B. DATA VISUALIZATION: TURNING INFORMATION INTO INSIGHT**

An effective model must not only create a variety of information, but also allow users to obtain and communicate insight. Very often, charts and other data visualizations are the most effective way to do this. A strong visualization of the tradeoffs between financial performance and impact is an especially powerful tool to explicitly identifying the difficult choices faced by a social enterprise.

**PREPARATION**

- [NYU Classes] Privett, Natalie. “Webinar: How to Effectively Communicate Data.” *NYU Stream*.
- [NYU Classes] Privett, Natalie. “How to Effectively Communicate Data.” This is the presentation that Professor Privett used in her webinar.
- [NYU Classes] “Data Visualization 101: How to Design Charts and Graphs” Hubspot + Visage
- [NYU Classes] “Visual Analysis Best Practices: Simple Techniques for Making Every Data Visualization Useful and Beautiful” Tableau Software
- [NYU Classes] Alexander, Michael, and John Walkenbach. *Excel Dashboards and Reports*, 2nd Edition. John Wiley & Sons, 2013 (e-book)

**C. ORGANIZING SCENARIOS AND FINALIZING YOUR DASHBOARDS**

Excel’s Scenario Manager function contains powerful tools to organize and present projection (and other) scenarios. We will also recap some best practices in organizing summary dashboards that will help to make your final models not only rigorous but also user-friendly.

**PREPARATION**

- Samonas text, Chapters 7 and 8
- Practice with Excel’s Scenario Manager and your model before class

**D. COURSE WRAP-UP AND CONCLUSION**

We will wrap and the course and discuss tips for the Final Practical Exam.

**Final Practical Exam**

***(may be taken during any continuous  
three-hour period from May 3 to May 13)***