

Executive MBA
2016 Summer Workshop: Math/Excel

Course Information

Time: Tuesday and Thursday, 3:00 PM – 6:20 PM
Duration: July 14th, 2016 – August 11th, 2016
Location: EXED (Bank of America Executive Education Center) 320
Instructor: **Shaosong Ou**, Ph.D.
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Office Hours: Tuesday and Thursday, 6:20 PM – 7:00 PM
Or by appointment
Class Website: <https://canvas.uw.edu>

Textbooks & Course Materials

- Downing, D., ***E-Z Algebra (Barron's E-Z)***, 5th Edition, Barron's Education Series 2009, ISBN: 9780764142574
- Bleau, B. L., ***Forgotten Calculus***, 3rd Edition, Barron's Education Series 2002, ISBN: 9780764119989
- Emery, E. D., ***Principles of Economics: Microeconomics***, Cengage Learning 2007, ISBN: 9780324680249
- Parsons, J. J., Oja, D., Ageloff, R., Carey, P., and DesJardins, C., ***New Perspectives on Microsoft Office Excel 2013, Brief***, Cengage Learning 2013, ISBN: 9781285169392

These books provide great reviews of the materials covered in class with many problem sets and solutions. We will use them frequently for our pre-session preparations and post-session exercises – more details will be announced as the workshop moves along. Workshop attendees are encouraged to follow the recommendations by reviewing the materials before each session and doing as many of the problem sets as they feel necessary afterwards to get familiarized with the course concepts.

Workshop Description

The Summer EMBA Workshop is designed to better prepare the incoming EMBA students for the program with additional training in basic mathematics and computerized data analysis. Its goal is to bring the new students up to the level of proficiency in mathematics and/or Microsoft Excel that the program expects and to help them succeed in school.

The Workshop consists of two parts, the Math Workshop and the Excel Workshop. There are nine class sessions, six for Math Workshop and three for Excel Workshop. We will meet every Tuesday and Thursday from 3:00 PM to 6:20 PM for about five weeks starting 7/14/2016 and ending 8/11/2016. Our classroom is EXED (Bank of America Executive Education Center) 320. The Workshop website is <https://canvas.uw.edu/>, where course-related materials such as the syllabus, assignments, and session notes will be posted. To accommodate the students who cannot attend the class in person, all sessions will be videotaped and available by live streaming online.

Math Workshop (Session 1 – 6)

The Math Workshop includes topics in basic mathematics, algebra, calculus, and microeconomics with many problem sets (to be worked in class and at home) drawn from various business disciplines. Since most EMBA Economics and Finance courses are based on a heavy math foundation, these exercises provide a great resource of help to prepare them for these subjects, especially those who are not familiar with the mathematical representations behind these business problems.

For those who attend the workshop in person, you should try to complete the assigned reading before each session. In class we will work through a series of exercises. If you have done the reading, you will have more time to work on the problems at your own pace. For those who attend the workshop online, you should follow the session videos, go through the appropriate tutorials, read the class notes that accompany each lecture, and work on the assigned problems. To test your knowledge of the class materials, a short quiz will be given on Session 6 (8/2/2016). Students are required to take the quiz and receive a passing grade.

You should not need a laptop for the Math Workshop, but if you do plan to use it to take notes in class, wireless Internet access is available in all classrooms. You will need to use your UW NetID to sign in.

Excel Workshop (Session 7 – 9)

The Excel® Workshop is designed to teach or refresh the students with the basic knowledge on probability and statistics, and to enhance their problem-solving ability using Microsoft Excel. It consists of three sessions covering various aspects of spreadsheet design and application, and is intended for those with limited knowledge in Excel. If you have prior experiences with statistics and spreadsheet data analysis, you do not need to

attend this workshop although there is always more to learn about a versatile software application like Microsoft Excel.

The Excel Workshop will be based on Microsoft Excel 2013 on a Windows-based computer. The textbook includes four Excel tutorials that cover the basics of using Microsoft Excel 2013. We will go over most of them during the workshop. Although there are many similarities between Excel 2013 for PC and other versions, important differences exist. Students are expected to manage these differences if they use a different version or a different Operating System. An Internet connection is required to download class materials.

For those who attend the workshop online, you should follow the session videos, read and finish the assigned tutorials from the textbook, and go over the class notes for each lecture. In class, we will go through the tutorials and work on selected problems at the end of each session to ensure that the concepts are fully understood. The tutorial files can be downloaded from the Workshop website before each class session.

Workshop Timeline¹

The Workshop's schedule and topics are listed below. I will also provide additional preparation information for each session as the workshop progresses.

	Session	Date	Topics
Math Workshop	Math Session 1	Thursday 7/14/2016	Workshop Overview
	Math Session 2	Tuesday 7/19/2016	Introduction to Calculus; Graphing & Interpreting Graphs
	Math Session 3	Thursday 7/21/2016	Calculus and Applications; Function and Derivatives
	Math Session 4	Tuesday 7/26/2016	Principles of Microeconomics; Basics of Economic Modeling
	Math Session 5	Thursday 7/28/2016	Supply and Demand; Market Equilibrium
	Math Session 6	Tuesday 8/2/2016	Economic Constraints and Optimization; Quiz
Excel	Excel Session 1	Thursday 8/4/2016	Microsoft Excel Overview; Data Formatting; Excel Functions
	Excel Session 2	Tuesday 8/9/2016	Advanced Functions and Formula in Excel
	Excel Session 3	Thursday 8/11/2016	Charts and Graphs; Pivot Table; Simulation & Optimization

¹ Subject to change depending on the actual pace of the workshop