



Stanford Continuing Studies | Winter 2012 | WSP150
Discovering Your Inner Quant Jock:
Financial Modeling and Business Decisions
Updated November 13, 2011

Lecturer: Iddo Hadar, Growth Strategist;
M&A Transaction Advisor, Ernst & Young

Dates/Times/location: Two weekend sessions on January 21 and February 4, from 10am to 4pm, at Bldg. Meyer Library , Room Meyer Forum Rm. 124.

Course Objectives:

- To help you overcome any barriers to expanding your utilization of the capabilities of spreadsheet programs; and
- To provide you with the methods and the mindset to make complex financial and economic decisions.

Course Grading:

You have three options:

- No Grade Requested (this is the default option)
- If you elect to Credit/No Credit, submitting the homework and final assignments will earn you Credit.
- If you elect to obtain a letter grade, the quality of the homework and final assignments will account for 100% of your grade.

Course Materials and Resources:

- *Course Blog:* Will provide access to on-line reference materials for Microsoft Excel and modeling.
- "*Mail-outs:*" Reference materials and guides to help you work through class exercises.
- The following books are optional reading and reference materials, if you have the time or need during or after the course:
 - o Session 1: Modeling
 - Competing on Analytics: The New Science of Winning, by Thomas Davenport
 - Microsoft Excel Data Analysis and Business Modeling, by Wayne Winston
 - EXCEL Applications for Accounting Principles, by Gaylord Smith
 - How To Lie With Charts, by Gerald Jones
 - The Visual Display of Quantitative Information, by Edward R. Tufte
 - Business Analysis with Microsoft Excel, by Conrad Carlberg
 - o Session 2: Data Analysis
 - Fooled by Randomness: The Hidden Role of Chance in Life and in the Markets. by Nicholas Taleb
 - How to Lie with Statistics, by Darrell Huff
 - Statistical Analysis with Excel for Dummies, by Joseph Schmuller
 - Excel 2007 Data Analysis For Dummies and Excel Data Analysis for Dummies, by Stephen Nelson
 - Web Analytics: An Hour a Day, by Avinash Kaushik



Course Description:

- We have the tool—a super-powerful spreadsheet on our desktops—but we know that we are probably using less than five percent of its functionality.
- We have many financial and business decisions in our professional and personal lives, but we never seem to tackle them properly.
- This course will provide students with the methods and the mindset to make complex financial and economic decisions.
- Topics covered will include: general techniques (structure, parameters, sensitivity analysis, reporting); demand forecasting; financial analysis and forecasting; personal financial planning; portfolio planning; dealing with uncertainty, and more.
- Students enrolling in this course are required to bring their own laptops to class. We will use Microsoft Excel for all modeling exercises.

Pre-class “homework:”

- Answer the question: *Which ONE decision would you be interested to see modeled as part of this course? For example, items which I normally include in this course are: demand forecasting, financial reporting, and investment portfolio. I'd like to know your key areas of interest; I'll do my best to incorporate the topics of greatest interest into the workshop.*

Assignments:

- Homework assignments (exercises explained during 1st session): Due January 29
- Proposal for final assignment (optional; explained during 1st session): Due January 29
- Final assignment (optional; as explained in class): Due February 26



Course Schedule (*subject to change*)

Session 1, January 21 – Course Overview, Modeling

Morning Module:

- Introduction
- General principles (structure, parameters, documentation)
- Generic forecasting techniques
- Incorporating uncertainty: Scenarios
- Mapping uncertainty: Sensitivity analysis
- Marketing modeling examples
- Marketing decision-making applications

Afternoon Module:

- In-class practice
- Financial planning
- Reporting and charting techniques
- Incorporating uncertainty: Simulation
- Using SOLVER (marketing examples)
- Extensions:
 - o Financial decisions
 - o Operations decisions
- Homework Assignment

Session 2, February 4– Data Analysis, Course Summary

Morning Module:

- Introduction
- General principles: Data analysis/mining process
- Web analytics
- Average and distribution statistics
- Analyzing uncertainty: testing significance
- ANOVA: Marketing modeling examples
- Integrating the concepts and tools

Afternoon Module:

- In-class practice
- Regression analysis
- Financial modeling examples
- Data tabulation and consolidation
- Extensions
- Final Assignment
- Course summary