



Course Title: Discovering Your Inner Quant Jock: Financial Modeling and Business Decisions

Course Code: BUS 150W

Instructor: Iddo Hadar, Growth Strategist; Private Equity Executive; Mergers and Acquisitions Expert

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Class Sessions and Recording

Meeting days and times: Optional live sessions will take place* every Sunday, from Jun 26 through Aug 21 (except Jul 3), at 10am Pacific Standard Time.

**Please note that the live session schedule is subject to change.*

Meeting location: Zoom

The class sessions will be recorded. Students could benefit from attending sessions live to discuss specific questions, but sessions will also be recorded to accommodate individual schedules or conflicts. Class session attendance is not required for earning credit, but is highly recommended for gaining proficiency!

Course Features:

- Live session
 - Lecture, demonstration, practice, and Q&A
 - Requires interaction and active participation
- Assignments & Coursework
 - Assignments, demonstrations, and course materials posted in Canvas
 - Students should regularly practice methods and approaches shown in class
 - Weekly quizzes (graded in Canvas)
 - Students will submit one final assignment
 - Instructor will provide feedback on assignments

Course Summary:

BUS 150 W aims to help you overcome 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.

**Please see course page for full description and additional details.*

Please contact the Stanford Continuing Studies office with any questions
 365 Lasuen St., Stanford, CA 94305
 continuingstudies@stanford.edu
 650-725-2650

Grade Options and Requirements:

- No Grade Requested (NGR)
 - This is the default option. No work needs to be submitted; no credit shall be received; no proof of attendance can be provided.
- Credit/No Credit (CR/NC)
 - Timely submission and an average grade of at least 70% on weekly quizzes and submitting the final assignment by due date will earn you Credit.
- Letter Grade (A, B, C, D, No Pass)
 - Weekly quizzes 80%
 - Final assignment 20%

Quizzes and final assignment should be submitted by defined deadlines to earn grade.

**Please Note: If you require proof that you completed a Continuing Studies course for any reason (for example, employer reimbursement), you must choose either the Letter Grade or Credit/No Credit option. Courses taken for NGR will not appear on official transcripts or grade reports.*

Tentative Weekly Outline *(Subject to change):*

Week 1: starting Jun 20

Introduction and class overview

Good modeling practices: General principles (structure, parameters, documentation)

Week 2: starting Jul 4 *(note: No class the week of Jun 27)*

Demand forecasting: Generic forecasting techniques

Derived demand

Incorporating uncertainty: Scenarios

Mapping uncertainty: Sensitivity analysis

Week 3: starting Jul 11

Optimization tools and techniques (e.g., SOLVER)

Planning and decision-making applications (financial, marketing)

Reporting and charting techniques

Week 4: starting Jul 18

Financial planning

Monte Carlo: Modeling uncertainty

Decision making under uncertainty

Portfolio simulation

Week 5: starting Jul 25

Data analysis
Introduction to statistical decision-making
Summarizing and visualizing data
Average and distribution statistics

Week 6: starting Aug 1

Decision making
Forming and testing hypotheses
Analyzing uncertainty: testing significance

Week 7: starting Aug 8

Data mining/part 1
General principles: Data analysis/mining process
Regression tools and applications

Week 8: starting Aug 15

Data mining/part 2
Multiple regression and qualitative factors
Data tabulation and consolidation (e.g., summary and pivot tables)
Advanced data reduction techniques

Week 9: starting Aug 22

Big data analytics
Course summary

Course Materials and Resources:

Students must have access to Microsoft Excel; and should secure and run the proper software prior to the first day of class (following instructions on the Welcome page in Canvas). All exercises will be demonstrated in Microsoft Excel 2013 (Windows) and 2016 (Mac), but should be easily understandable by users of other Excel versions. However, students with earlier versions may be unable to complete some of the exercises. If necessary, students can access the latest Excel software by subscribing to Microsoft 365 Personal for the duration of the course (at a cost of about \$7/month, from Microsoft).

The following books are optional reading and reference materials, if you have the time, need, or interest during or after the course:

- Competing on Analytics: The New Science of Winning, by Thomas Davenport
- Microsoft Excel Data Analysis and Business Modeling and Microsoft Excel 2013 Data Analysis and Business Modeling, by Wayne Winston
- Business Analysis with Microsoft Excel, by Conrad Carlberg

- EXCEL Applications for Accounting Principles, by Gaylord Smith
- Excel Data Analysis For Dummies, by Stephen Nelson
- How to Lie with Statistics, by Darrell Huff
- Statistical Analysis with Excel for Dummies, by Joseph Schmuller
- Fooled by Randomness: The Hidden Role of Chance in Life and in the Markets. by Nicholas Taleb
- How To Lie With Charts, by Gerald Jones
- The Visual Display of Quantitative Information, by Edward R. Tufte
- Big Data at Work: Dispelling the Myths, Uncovering the Opportunities, by Thomas Davenport

Assignments and Tests:

- Online Quizzes: Weekly
- Final assignment (required for grade or credit; as explained in class): Due Sep 4
- No late submissions can be accepted