Course Title: Discovering Your Inner Quant Jock: Financial Modeling and Business Decisions
Course Code: BUS 150W
Instructor: Iddo Hadar, Growth Strategist; Associate Director, Boston Consulting Group (BCG)

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.

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 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 Zoom Schedule*:

Optional live Zoom sessions will take place every Sunday, from Apr 5 through May 31 (except Apr 12), at 10am Pacific Standard Time.

*Please note that the Zoom schedule is subject to change.
Tentative Weekly Outline (Subject to change):

Week 1: starting Mar 30
Introduction and class overview
Good modeling practices: General principles (structure, parameters, documentation)

Week 2: starting Apr 13  (note: No class the week of April 6)
Demand forecasting: Generic forecasting techniques
Derived demand
Incorporating uncertainty: Scenarios
Mapping uncertainty: Sensitivity analysis

Week 3: starting Apr 20
Optimization tools and techniques (e.g., SOLVER)
Planning and decision-making applications (financial, marketing)
Reporting and charting techniques

Week 4: starting Apr 27
Financial planning
Monte Carlo: Modeling uncertainty
Decision making under uncertainty
Portfolio simulation

Week 5: starting May 4
Data analysis
Introduction to statistical decision making
Summarizing and visualizing data
Average and distribution statistics

Week 6: starting May 11
Decision making
Forming and testing hypotheses
Analyzing uncertainty: testing significance

Week 7: starting May 18
Data mining/part 1
General principles: Data analysis/mining process
Regression tools and applications

Week 8: starting May 25
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 Jun 1
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). 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 Office 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 June 14
- No late submissions can be accepted