DATA-DRIVEN INVESTMENTS: LAB
MGMT 767 & BUSI 449
SPRING 2024
KERRY BACK & KEVIN CROTTY
This version: December 7, 2023

Classroom:	TBD
Class Time:	Mon/Wed 2:15-3:45 pm
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Course Requirements and Prerequisites:
Students must have completed the core Finance, Accounting, and Data Analysis courses in their program.

Graduate: Students should have either completed Data-Driven Investments: Equity or be concurrently enrolled in Data-Driven Investments: Credit.

Undergraduate: Students need to have completed BUSI 448 (Investments).

Course Description:
This course is part of the Data-Driven Investments curriculum designed to equip students with an analytical quantitative investment toolkit. Students will work in groups to develop, test, and implement investment strategies using Python. The investment strategies will be driven by a range of datasets provided by the instructors. The instructors will provide examples of Python programs implementing investment strategies.

Each group will first select a primary dataset or set of datasets to utilize. In the first part of the course, students will explore the data and develop trading ideas. The instructors will provide guidance on what types of strategies are typically employed using a given dataset.

In the second part of the course, students will implement their chosen strategy using a paper trading simulation. The course will emphasize understanding the sources of investment performance. This will include analyses of factor and sector exposures as well as attribution analysis. Student groups will report weekly on performance evaluation and strategy implementation. The course culminates in a comprehensive group presentation of the strategy design, implementation, and performance evaluation.

Data and Potential Investment Strategies:
1. Financial ratios
2. Past price signals (momentum/reversals)
3. Analyst recommendation revisions
4. Corporate insider trades
5. Short interest
6. Corporate events (buybacks, splits, spin-offs)

Course Schedule:

Week	Lab Activities & Notes
Jan 8/10	*Only undergraduates this week* Selected material from Data-Driven Investments: Equity Course
Jan 15/17	*No class on Monday (MLK Holiday)* Intro to datasets and strategies Form groups
Jan 22/24	Intro to backtesting and performance analysis Intro to Alpaca paper trading
Jan 29/31	For next two weeks: Groups explore datasets and develop set of potential investment ideas
Feb 5/7	
Feb 12/14	Groups finalize strategy for paper trading Report on backtesting on Wednesday
Feb 19/21	For following weeks: Conduct paper trading Refine strategies Report weekly performance evaluation on Wednesday
Feb 26/28	*Only undergraduates on Wednesday*
Mar 4/6	*Only undergraduates this week*
Mar 11/13	*Only MBAs this week*
Mar 18/20	
Mar 25/27	
Apr 1/3	
Apr 8/10	
Apr 15/17	Presentation: strategy design, performance evaluation, and implementation

Grading:

Grades will be determined using the following weighting scheme.

Assessment	Weights	Group or Individual?
Initial Strategy Presentation	20%	Group
Weekly Performance and Trading Reports	50%	Group
Final Presentation	20%	Group
Peer Reviews	10%	Individual