Schedule

This course schedule **will** change during the semester. Ad hoc topic changes (unannounced) may be based on current events or class pace and interest. Announcement of any meeting changes will be distributed via Discord; please ensure that you are monitoring the `#announcements` channel there.

Midterm and final examinations are tentatively scheduled for Friday 4/4 1–3pm, and Wednesday 5/7, 9am–12pm, respectively.

	M/W	Tu/Th	Potential topics	Deliverable
	M 1/20		**No class (MLK Holiday)**	—
1	W 1/22	Tu 1/21	*Course introduction* Market returns and risk Implied and realized volatility Calculations in Excel	HW0 (due Thursday 1/23)
2	M 1/27	Th 1/23	*Python demo; Introduction to data* Relative performance and hedging Performance attribution Python demo (Copilot)	
3	W 1/29	Tu 1/28	*Financial questions and financial analysis* Class survey Return skewness and binary returns CRSP Bloomberg Intro. to Forecasting	HW1
4	M 2/3	Th 1/30	*Python introduction* Binomial trees and binomial distribution Python and the notebook ecosystem	
5	W 2/5	Tu 2/4	Following and explaining financial news Python arithmetic booleans functions	HW2
6	M 2/10	Th 2/6	Python variables and types	
7	W 2/12	Tu 2/11	Order speed and execution quality Monte Carlo simulation Initialize/loop/filter Random numbers	HW3

	M/W	Tu/Th	Potential topics	Deliverable
	M 2/17		**No class (Presidents Day Holiday)**	—
8	**Tu 2/18**	Th 2/13	*Financial modeling with data* Record highs as binary trees Duration and the Gordon Growth model Non-uniform random variables	
		Tu 2/18	**Monday classes meet on Tuesday (Babson Monday)**	—
9	W 2/19	Th 2/20	*Monte Carlo simulation* Brownian motion	HW4
10	M 2/24	Tu 2/25	*Pandas introduction* Prices and returns	
11	W 2/26	Th 2/27	*Midterm project presentations* `Series` and `DataFrame`, index	Midterm group project (due Tuesday 2/25)
12	M 3/3	Tu 3/4	Dividends and closing price adjustments Questions ↔ Algorithms ↔ Code CSV imports, method chaining	HW5
13	W 3/5	Th 3/6	**Attendance required**: Professional ethics	Ethics discussion prep.
14	M 3/10	Tu 3/11	Random variation and sampling error Autocorrelation and return momentum `Series` methods, Visualizing distributions	
15	W 3/12	Th 3/13	Demand curves and price elasticity Margins/markups and the competitive environment Commodities prices (FRED) CSV imports, exploratory data analysis	HW6
	M 3/17	**Tu 3/18**	**No class (Spring Break)**	—
	W 3/19	**Th 3/20**	**No class (Spring Break)**	—
16	M 3/24	Tu 3/25	Mortgage data (FRED) Term structures FRED API EDA and visualization	

	M/W	Tu/Th	Potential topics	Deliverable
17	W 3/26	Th 3/27	*Data/methods demonstration presentations*	Data/methods demo (due Tuesday 3/25)
18	M 3/31	Tu 4/1	*Data/methods demonstration presentations*	
19	W 4/2	Th 4/3	**Attendance required**: Professional ethics	Ethics report (due Tuesday 4/1)
	F 4/4	**F 4/4**	**Midterm examination** Date, time, and room pending confirmation	Midterm exam
20	M 4/7	Tu 4/8	The Capital Asset Pricing Model (CAPM) Data cleaning and EDA Visualizing relationships	
21	W 4/9	Th 4/10	*Introduction to regression* Total risk, systematic risk, idiosyncratic risk Seaborn and Pandas EDA Covariance, correlation, and regression slopes	HW7
22	M 4/14	Tu 4/15	House price prediction OLS in `statsmodels` Interpreting regression outputs Visualizing non-linear/heterogeneous effects	
23	W 4/16	Th 4/17	TBA	
	M 4/21		**No class (Patriots Day Holiday)**	—
24	W 4/23	Tu 4/22	*Group presentations*	Final group project (due Monday 4/21)
25	**F 4/25**	Th 4/24	*Group presentations*	
26	M 4/28	Tu 4/29	Final wrapup	
	W 5/7	**W 5/7**	**Final examination** Date, time, and room pending confirmation	Final exam