

Updated 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.

"*" indicates topics covered only in some sections. The following reflects the latest updates:

	Meeting	Financial topics	Technical topics	Deliverable
1	1/21–2 <i>Course introduction</i>	Intraday and overnight risk and returns* Market making*	Calculations in Excel	HW0 (due Thursday 1/23)
2	1/23–27 <i>Python demo</i>	Market making* Record highs and binary trees*	Python demo	
3	1/28–29 <i>Introduction to data</i>	Volatility and return extremes (NVDA) Core data issues and student survey* Bloomberg	ABCD	HW1
4	1/30–2/3 <i>Describing time series</i>	Event studies in a binary model (tarrifs)* Introduction to Monte Carlo	Mean, Standard deviation Actions and returns*	
5	2/5–6 <i>Statistical models and fit</i>	Binary trees and binomial models Over-dispersion and persistence/reversals	Actions and returns* Bayesian updating Binomial distributions	HW2
6	2/10–11 <i>Two-asset portfolios; Python intro</i>	Two-asset portfolios Correlation and idiosyncratic risk Leverage constraints Sharpe ratios	Bloomberg data exports Python arithmetic Boolean math Intro. to functions	
7	2/12–13 <i>Conditional programming and looping</i>	Midterm project introduction "Biggest number game"*	if Initialize/loop/filter Random numbers List comprehension*	HW3

	Meeting	Financial topics	Technical topics	Deliverable
8	2/18 (Catch-up; see MW class 9)			
9	2/19–20 <i>Valuing liquidity</i>	Order speed and execution quality Monte Carlo simulation	Binomial simulation*	
10	2/24–25 <i>Working with Python packages</i>	From Monte Carlo to backtesting (pairwise comparisons of mean, min, max daily returns)	Python's package ecosystem	
11	2/26–27 Attendance required <i>Midterm project presentations</i>	Fixed income analysis		Midterm group project (due Tuesday 2/25)
12	3/3–4 <i>Pandas Series; momentum and reversals</i>	Momentum, reversals, and autocorrelation Binomial modeling and the cross-section	Pandas Series	HW4
13	3/5–6 Attendance required <i>Professional ethics</i>	Professional ethics		Ethics discussion prep.
14	3/10–11 <i>Pandas Dataframes; commodities prices</i>	Commodities prices FRED	CSV imports Python time-series methods	Midterm project peer reviews
15	3/12–13 <i>Applied Pandas analysis; Mortgage market data</i>	Mortgage pricing and term structure Binary options and refinancing	Manipulating and creating columns	HW5
16	3/24–25 <i>Applied Pandas analysis; Drawdowns and "corrections"</i>	Drawdowns and "corrections" Technical analysis	Filtering data loc and iloc	
17	3/26–27 Attendance required <i>Data/methods demonstrations</i>	Student-chosen topics	Student-chosen topics	Data/methods demo (due Tuesday 3/25)

	Meeting	Financial topics	Technical topics	Deliverable
18	3/31–4/1 <i>Data/methods demonstrations; Exploratory data analysis</i>	Data/methods demonstrations* WRDS/CRSP Ticker re-use	Data cleaning and EDA	
19	4/2–3 Attendance required <i>Professional ethics</i>	Professional ethics	Data on web pages (e.g., Wikipedia)	Ethics report (due Tuesday 4/1)
	F 4/4 Midterm examination	All topics covered so far	All topics covered so far	Midterm exam (1–3p in Olin 120)
20	4/7–8 <i>Assessing tariff effects; Introduce final project</i>	After-hours trading and index futures Final project introduction	Data cleaning and EDA*	
21	4/9–10			
22	4/14–15			HW6
23	4/16–17			
24	4/22–23 Attendance required <i>Final project presentations</i>	Cross-sectional asset pricing and interest- rate sensitivity		Final group project (due Monday 4/21)
25	4/24–25 Attendance required <i>Final project presentations</i>	(cont.)		
26	M 4/28–29			HW7
	W 5/7 Final examination	All topics	All topics	Final exam (9a–12p in Olin 120; subject to change)