

Intermediate Data Science - Fall 2026

DATE	WEEK	DAY	Lecture Topic	Reading	Notes
09/01/2026	1	Tuesday	Day 1: Install Python/GIT Packages & Review of DATA 101	Python for Data Analysis – ch. 2.3 & 3	Make sure your computer is working!
09/03/2026	1	Thursday	Day 2: Start Advanced pandas – descriptive stats & essential functions	Python for Data Analysis – ch. 5 Career Reading (discuss 9/8): Build a Career in Data Science 1.1 – What is Data Science	
09/08/2026	2	Tuesday	Day 3: Data Loading and Storage – JSON, delimited files; responsible data stewardship	Python for Data Analysis – ch. 6	Career Discussion: 1.1 What is Data Science
09/10/2026	2	Thursday	Git Catch-Up: sandbox and team repo workflow		Day 4 moved to Tue 9/15. Days 4-10 each shifted one class; the review day before Exam 1 was dropped to make room.
09/15/2026	3	Tuesday	Day 4: Data Cleaning and Preparation	Python for Data Analysis – ch. 7 Career Reading (discuss 9/17): Build a Career in Data Science 1.2 – Different Types of Data Science Jobs	
09/17/2026	3	Thursday	Day 5: Data Wrangling – Join, Combine, Reshape	Python for Data Analysis – ch. 8	Career Discussion: 1.2 Different Types of Data Science Jobs
09/22/2026	4	Tuesday	Day 6: Data Visualizations – Plotly, Matplotlib, Pandas, Seaborn; avoiding misrepresentation	Python for Data Analysis – ch. 9 Career Reading (discuss 9/24): Build a Career in Data Science 1.3 – Choosing your Path	
09/24/2026	4	Thursday	Day 7: Putting it together – Data Science/Analysis Project	Focus on writing and presentation	Career Discussion: 1.3 Choosing your Path
09/29/2026	5	Tuesday	Day 8: Data Aggregation and Group Operations	Python for Data Analysis – ch. 10 Career Reading (discuss 10/1): Build a Career in Data Science 2.1 – DS Companies: Massive Tech	
10/01/2026	5	Thursday	Day 9: Time Series Data – timestamps, periods, resampling, frequency conversion	Python for Data Analysis – ch. 11	Career Discussion: 2.1 DS Companies – Massive Tech
10/06/2026	6	Tuesday	NO CLASS (class cancelled)		Exam 1 handed out – work individually and submit your draft before Thursday's class.
10/08/2026	6	Thursday	Exam 1 – Work with Your Team	Exam 1 and Self-Assessment due	

10/13/2026	7	Tuesday	NO CLASS – Fall Break		
10/15/2026	7	Thursday	Day 10: Web Scraping and Ethics in Data Acquisition	Case study: The Ethics of Using Hacked Data (on the class website) Career Reading (discuss 10/20): Build a Career in Data Science 2.2 – DS Companies: Established Retailers	New teams start today
10/20/2026	8	Tuesday	Day 11: Start Modeling & Machine Learning – Classifying Iris Species	Introduction to Machine Learning with Python – ch. 1.7 Career Reading (discuss 11/10): Build a Career in Data Science 2.3–2.4 – DS Companies: Startups	Career Discussion: 2.2 DS Companies – Established Retailers
10/22/2026	8	Thursday	Catch-Up Day (in class)	Career Reading (discuss 11/10): Build a Career in Data Science 2.5 – DS Companies: Government Contractors	Pause and catch up: work time in class. Final Project Draft Proposal due Sunday 10/25, 11:59pm
10/27/2026	9	Tuesday	Day 12: Review of Linear & Logistic Regression – Overfitting/Underfitting	Introduction to Machine Learning with Python – ch. 2.1–2.2	
10/29/2026	9	Thursday	Day 13: Supervised Learning – k-Nearest Neighbors, Linear Models, Scaling and Regularization	Introduction to Machine Learning with Python – ch. 2.3.1–2.3.3 Career Reading (discuss 11/17): Build a Career in Data Science 4.1 & 4.3 – Building a Portfolio	Don't forget to sign up for Spring classes: DATA 211
11/03/2026	10	Tuesday	Day 14: Supervised Learning – Naive Bayes Classifiers	Introduction to Machine Learning with Python – ch. 2.3.4	
11/05/2026	10	Thursday	Day 15: Supervised Learning – Decision Trees	Introduction to Machine Learning with Python – ch. 2.3.5 Career Reading (discuss 11/17): Build a Career in Data Science 5.1 & 5.2 – Finding the Right Job	
11/10/2026	11	Tuesday	Day 16: Supervised Learning – Support Vector Machines and Linear Discriminant Analysis	Introduction to Machine Learning with Python – ch. 2.3.7	Career Discussion: Types of Data Science Companies (ch. 2.1–2.5, all together) Project Proposal and Exploratory Data Analysis due, 11:59pm
11/12/2026	11	Thursday	Day 18: Unsupervised Learning – PCA (which features matter?)	Introduction to Machine Learning with Python – ch. 3.4.1 Career Reading (discuss 11/17): Build a Career in Data Science 6.1 & 6.2 – Resume and Cover Letter Basics	

11/17/2026	12	Tuesday	Day 19: Unsupervised Learning – k-Means Clustering	Introduction to Machine Learning with Python – ch. 3.5.1	Career Discussion: Portfolio, Resume and Cover Letter (4.1, 4.3, 5.1–5.2, 6.1–6.2)
11/19/2026	12	Thursday	Review Day	Review and practice for Exam 2 – Modeling and Machine Learning	Exam 2 handed out – work individually and submit your draft before Tuesday's class.
11/24/2026	13	Tuesday	Exam 2 – Work with Your Team	Exam 2 and Self-Assessment due	Final Project teams announced
11/26/2026	13	Thursday	NO CLASS – Thanksgiving		
12/01/2026	14	Tuesday	Days 20 & 21: Model Evaluation and Advanced Methods – Cross-Validation and Grid Search	Introduction to Machine Learning with Python – ch. 5.1–5.2	
12/03/2026	14	Thursday	Day 22: Evaluation Metrics; Putting it all together – The Data Science Lifecycle	Introduction to Machine Learning with Python – ch. 5.2 Reading assigned on Canvas Career Reading: Build a Career in Data Science 6.3 & 7+ – Tailoring Your Application / The Interview	
12/12/2026		Saturday, Noon	FINAL EXAMS – Final Project Presentations	Final projects due Sat 12/12 at Noon, pushed to your team repo	Each group presents their results during our final exam period.

Shading key: alternating bands = regular weeks | peach = exam day | pale yellow = review day | pink = no class (holiday) | purple = finals week. Career Building readings are assigned on the day listed and discussed on the date in parentheses.