

Course Schedule

Week	Dates	Topic (Lecture)	Lab Focus	Homework
1	Jan 13–17	Course Introduction and Data Types	No Lab	No HW
	Jan 13	Course Introduction and Colab		
	Jan 15	Basic Data Types		
	Jan 17	Variables, Expressions, and Conditionals		
2	Jan 20–24	Conditionals and Lists	No Lab	HW #1
	Jan 20	No Lecture		
	Jan 22	Advanced Conditionals		
	Jan 24	Lists		
3	Jan 27–31	Collections and Loops	Expressions and Conditionals	HW #2
	Jan 27	Collections		
	Jan 29	Introduction to Loops		
	Jan 31	Looping Continued		
4	Feb 3–7	Functions, Objects, and Methods	Collections and Loops	HW #3
	Feb 3	Functions		
	Feb 5	Advanced Functions		
	Feb 7	Objects and Methods		
5	Feb 10–14	Classes and Libraries	Functions	HW #4
	Feb 10	Classes		
	Feb 12	Classes Continued		
	Feb 14	Modules, Packages, and Libraries		
6	Feb 17–21	Review and Exam 1	No Lab	No HW
	Feb 17	Optional: Review Day		
	Feb 19	Exam #1		
	Feb 21	Virtual: Representing Information		
7	Feb 24–28	NM I: Differentiation and Integration	Differentiation	HW #5

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	Feb 24	Differentiation Methods		
	Feb 26	Introduction to Integration		
	Feb 28	More Integration Techniques		
8	Mar 3–7	Debugging and Datetime	Integration	HW #6
	Mar 3	Error Handling		
	Mar 5	Datetime		
	Mar 7	Debugging		
9	Mar 10–14	NM II: Gradients and Roots	Gradients	HW #7
	Mar 10	Gradients		
	Mar 12	Root Finding		
	Mar 14	More Root Finding		
-	Mar 17–21	Spring Break	No Lab	No HW
10	Mar 24–28	File I/O and Data Visualization	Root Finding	HW #8
	Mar 24	Working with Files		
	Mar 26	Plotting with Matplotlib		
	Mar 28	More Plotting		
11	Mar 31–Apr 4	APIs and Data Integration	Time Complexity: Sorting	HW #9
	Mar 31	Background and HTTP		
	Apr 2	HTTP Methods in Python		
	Apr 4	Using APIs		
12	Apr 7–11	Data Processing	APIs	HW #10
	Apr 7	Cleaning		
	Apr 9	Transformations and Encoding		
	Apr 11	Validating		
13	Apr 14–18	Review and Exam 2	No Lab	No HW
	Apr 14	Flex Day		
	Apr 16	Review		
	Apr 18	Exam #2		
14	Apr 21–25	AI	Data Pipelines	No HW
	Apr 21	Background		

Week	Dates	Topic (Lecture)	Lab Focus	Homework
	Apr 23	Leveraging AI		
	Apr 25	Your First Chatbot		
15	Apr 28 (last day)	Project Q&A Day	No Lab	No HW