Schedule

Course Schedule

Week	**Topic**	**Tools**
	Preliminaries	
1	Course Introduction	Scripts; R and RStudio
2	Reproducible Data Analyses	Markup Languages; Quarto
3	File Management & Version Control	Filesystems; git; GitHub
4	A Field Guide to Data	Data Formats; surveys, readr; tidyr
5	Structural Data Manipulation	dplyr; srvyr
6	Data Visualization I	Grammar of Graphics; ggplot2
7	Data Visualization II	ggplot2
8	**Core Exam (Thursday, October 16)**	
9	Workflow & Data Retrieval	tidycensus; APIs; database/SQL overview
10	Social Networks & Network Data	iGraph; statnet
11	Cartography	tidyverse mapping; color scales; projection
12	Geographic Data	sf; tigris; mapgl; mapbox; osm
13	GIS Day, Catch Up, and Project Work	
14	Statistics & Flow Control	Loops, ttest(), lm(), glm()
15	Project Presentations	
F	**Finals Week (Project Due)**	

Advanced Topics *(if we have time)*

Week	**Topic**	**Tools**
	Text Data & Data Scraping	
	Statistical Models	
	Missing Data	
	Web Apps & Visualization	quarto, shiny
	AI Pair Programming & "Vibe Coding"	github copilot
	Local LLMs	