Schedule

## Course Schedule

*subject to change*

| Week | **Topic** | **Tools** |  |
| --- | --- | --- | --- |
|  | [Preliminaries](assignments/assign1.qmd) |  |  |
| 1 | [Course Introduction](assignments/assign2.qmd) | Scripts; R and RStudio |  |
| 2 | [Reproducible Data Analyses](assignments/assign3.qmd) | Markup Languages; Quarto |  |
| 3 | [File Management & Version Control](assignments/assign4.qmd) | Filesystems; git; GitHub |  |
| 4 | [A Field Guide to Data](assignments/assign5.qmd) | Data Formats; readr; tidyr |  |
| 5 | [Structural Data Manipulation](assignments/assign6.qmd) | dplyr; srvyr |  |
| 6 | [Data Visualization I](assignments/assign7.qmd) | Grammar of Graphics; ggplot2 |  |
| 7 | [Data Visualization II](assignments/assign8.qmd) | ggplot2 |  |
| 8 | **Core Exam (Thursday, October 16)** |  |  |
| 9 | Social Networks & Network Data | iGraph; statnet |  |
| 10 | Census Data | tidycensus |  |
| 11 | Maps & GIS I | sf; tigris |  |
| 12 | Maps & GIS II | mapgl; mapbox; osm |  |
| 13 | Accessing & Using External Data | SQL, other APIs |  |
| 14 | Project Work |  |  |
| 15 | Project Presentations |  |  |
| F | **Finals Week (Project Due)** |  |  |

*Advanced Topics (if we have time)*

| Week | **Topic** | **Tools** |  |
| --- | --- | --- | --- |
| 16 | Text Data & Data Scraping |  |  |
| 17 | Web Apps & Visualization | quarto, shiny |  |
| 18 | AI Pair Programming & “Vibe Coding” | github copilot |  |
| 19 | Local LLMs |  |  |