

| Date   | Discussion Due Before Class | Lecture Topic   | Unit | Assignment              |               |
|--------|-----------------------------|---|------|-------------------------|---------------|
| Week 1 |                             | Syllabus and R/RStudio                                | 0    | Introduce Final Project |               |
|        | L1                          | Tidyverse (the verbs)                                 |      |                         |               |
|        | L2                          | Causation: Logic models, DAGS, and Potential Outcomes | 1    | HW 1                    |               |
|        |                             |   |      |                         |               |
| Week 2 | L3                          | Simple Regression                                     |      |                         |               |
|        | L4                          | Multiple Regression                                   |      |                         |               |
|        | L5                          | Regression with Categorical Variables                 |      |                         |               |
|        |                             | Exam 1  |      |                         |               |
| Week 3 | L6                          | Assumptions of Regression                             | 2    | HW 2                    |               |
|        | L7                          | Diagnostics (Detecting Irregularities)                |      |                         |               |
|        |                             |   |      |                         |               |
|        | L8                          | Missing Data and Other Real-World Problems            |      |                         |               |
| Week 4 | L9                          | Threats to Validity                                   | 3    | HW 3                    |               |
|        |                             | Exam 2  |      |                         |               |
|        | L10                         | Effect Sizes  |      |                         |               |
|        |                             |   |      |                         |               |
| Week 5 | L11                         | Linear Interaction                                    | 4    | Final Project           |               |
|        |                             |   |      |                         |               |
|        | L12                         | Nonlinear Relationships                               |      |                         |               |
|        | L13                         | Intro to Generalized Linear Models                    |      |                         |               |
| Week 6 |                             | Exam 3  | 4    | Final Project           |               |
|        | L14                         | Logistic Regression                                   |      |                         |               |
|        |                             |   |      |                         |               |
|        | L15                         | Other GLMs  |      |                         |               |
| Week 7 |                             |   | 4    |                         | Final Project |
|        | L16                         | Mediation Analysis                                    |      |                         |               |
|        | L17                         | Miscellaneous   |      |                         |               |
|        |                             | Exam 4  |      |                         |               |