Schedule

NRES 710

Fall 2022

## Schedule

Note: this schedule is subject to change. Please check for updates frequently!

| Week | Mon. meeting | Wed. meeting (R mini-lab) | Homework | Readings |
| --- | --- | --- | --- | --- |
| Aug. 29 (week 1) | Overview, intro to R | P-values, statistical tests |  |  |
| Sept. 5 (week 2) | No Class (labor day) | Sampling distributions; central limit theorem |  | Hot hand |
| Sept. 12 (week 3) | Central limit theorem and data simulation | R exercise: t-test, z-test | CLT and z-tests |  |
| Sept. 19 (week 4) | Confidence intervals, probability in R | R exercise: probability distributions |  |  |
| Sept. 26 (week 5) | Non-parametric analysis | R exercise: non-parametrics | permutation test |  |
| Oct. 3 (week 6) | Chi-squared test | No class (Kevin at conference) |  |  |
| Oct. 10 (week 7) | Linear regression | R exercise: linear regression | Linear regression |  |
| Oct. 17 (week 8) | ANOVA | R exercise: ANOVA |  | p-values and p-hacking |
| Oct. 24 (week 9) | Discussion: p-values | Discussion: p-hacking | ANOVA |  |
| Oct. 31 (week 10) | More advanced ANOVA | R exercise: |  | pseudoreplication |
| Nov. 7 (week 11) | Discussion: pseudoreplication | R exercise: power analysis | GLM |  |
| Nov. 14 (week 12) | GLM | R exercise: GLM |  |  |
| Nov. 21 (week 13) | GLMM | R exercise: GLMM | GLMM |  |
| Nov. 28 (week 14) | More advanced GLMM | Final project peer review |  |  |
| Dec. 5 (week 15) | Random Forest | R exercise: Random forest |  |  |
| Dec. 12 (week 16) | Next steps- multivariate, bayesian, etc. | Discussion: code and data sharing |  |  |
| Dec. 19 (week 17) | Final projects due 5pm on Dec 21 | Review session (optional) |  |  |