Stat 21

|  | **F20** | **S21** | **S22** |
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| **Week 1** | Rstudio, normal RVs, CLT, single proportion | Intro to class | Rstudio opinionated tour, collecting data, probability and RVs, CIs, tests (definitions and terms to know docs) |
| **Week 2** | Difference in proportions, t distribution, one and two sample means, conditional prob | Normal RVs, CLT, single proportion and two proportions; HW 1 | About class, normal RVs, CLT and sampling distributions, inference single proportion, Ch 0, cheat sheet for R; HW 1 (difference of propns) |
| **Week 3** | Chi square tests, factors and data manipulation in R | Two proportions, one and two means; HW 2 | Ch 1, SLR, t distribution, one and two sample means; HW 2 |
| **Week 4** | Qq plots, variability, anova | Probability, chi sq goodness of fit; HW 3 | Ch 2 qq plots, variability, SLR; HW 3 |
| **Week 5** | Anova, simpson's paradox, SLR | Chi sq homogeneity and independence, data manipulation in R, factors in R; test 1 | SLR, Test 1 |
| **Week 6** | SLR, test 1 | QQ plots, ANOVA and f-test, HW 4 | Ch 3, MLR; HW 4 |
| **Week 7** | Checking assumptions of SLR, inference with SLR | Tukey HSD, ANOVA; | Ch 3 MLR; HW 5 |
| **Week 8** | MLR quantitative only, then mixed with cat | Simpson's paradox, SLR, repeated measures ANOVA; HW 5 | Ch 4.1, 4.2, 4.3, 4.4, 4.5, MLR; HW 6 |
| **Week 9** | Polynomial and interaction and multicollinearity | Inference for SLR; HW 6 | Ch 5, ANOVA (chi-squared procedures?); HW 7 |
| **Week 10** | Independence and examples with MLR | Different types of intervals for SLR, test 2 | Test 2 |
| **Week 11** |  | MLR with categorical and influential data points; HW 7 | Ch 6, ANOVA; HW 8 |
| **Week 12** |  | MLR multicollinearity and interaction terms; HW 8 | Ch 7, ANOVA; HW 9 |
| **Week 13** |  | Interaction effects, building MLR | Ch 8.3, 8.7, 8.8, ANOVA; HW 10 |