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| **Date** | **Topic** | **Due** | **Notes** |
| Wednesday, May 12 | Data types, observational studies + experiments | | First day of class! |
|  | PS 1 and AE 1 assigned |  | Start reading Chapter 1 of textbook |
| Thursday, May 13 | Sampling principles, experimental design |  |  |
|  | Lab 1: Intro to R |  |  |
| Friday, May 14 | Data summarization (numerical) | PS 1 | Start reading Chapter 2 of textbook |
|  | PS 2 and AE 2.1 assigned |  |  |
|  | ---------------------------------------------------------- | ---------- | --------------------------------------------- |
| Monday, May 17 | Data summarization (categorical), randomization test | Lab 1 |  |
|  | AE 2.2 assigned |  |  |
| Tuesday, May 18 | Fundamentals of probability | PS 2 | Start reading Chapter 3 of textbook |
|  | Lab 2: Intro to data |  |  |
|  | PS 3 assigned |  |  |
| Wednesday, May 19 | Conditional probability, Bayes theorem |  |  |
|  | PS 3 and AE 3.1 assigned |  |  |
| Thursday, May 20 | Sampling from small population, random variables | Lab 2 |  |
|  | Lab 3: Probability |  |  |
|  | AE 3.2 assigned |  |  |
| Friday, May 21 | Normal distribution, Geometric distribution | PS 3 | Start reading Chapter 4 of textbook |
|  | PS 4 and AE 4 assigned |  |  |
|  | ---------------------------------------------------------- | ---------- | --------------------------------------------- |
| Monday, May 24 | Binomial distribution, Poisson distribution | Lab 3 |  |
|  | Project released |  | Start picking data and research questions |
| Tuesday, May 25 | Point estimates, confidence intervals | PS 4 | Start reading Chapter 5 of textbook |
|  | Lab 4: Sampling distributions |  |  |
|  | PS 5 assigned |  |  |
| Wednesday, May 26 | Hypothesis testing |  |  |
|  | AE 5 assigned |  |  |
| Thursday, May 27 | Buffer time (for leftover stuff), Mid-term review | Lab 4 |  |
|  | Lab 5: Confidence intervals |  |  |
| Friday, May 28 | Mid-term day (exam covers Ch. 1-5) |  | Exam open through 11:59pm Sunday, May 30 |
|  | ---------------------------------------------------------- | ---------- | --------------------------------------------- |
| Monday, May 31 | Memorial Day holiday, no class! |  |  |
| Tuesday, June 1 | Inference for single proportions | PS 5 | Start reading Chapter 6 of textbook |
|  | Lab: discuss Mid-term problems |  |  |
|  | PS 6 assigned |  |  |
| Wednesday, June 2 | Inference for two proportions, chi-square test for GOF | Lab 5 |  |
| Thursday, June 3 | Chi-square test for GOF & two-way table |  |  |
|  | Lab 6: Inference for categorical data |  |  |
|  | AE 6 assigned |  |  |
| Friday, June 4 | One sample mean t-test, paired data | Project Proposal | Start reading Chapter 7 of textbook |
|  | PS 7 assigned |  |  |
|  | ---------------------------------------------------------- | ---------- | --------------------------------------------- |
| Monday, June 7 | Difference of two means, power calculation | PS 6 |  |
| Tuesday, June 8 | Power calculation (cont.), ANOVA | Lab 6 |  |
|  | Lab 7: Inference for numerical data |  |  |
|  | AE 7 assigned |  |  |
| Wednesday, June 9 | Basics of linear regression, least squares |  | Start reading Chapter 8 of textbook |
|  | PS 8 and AE 8 assigned |  |  |
| Thursday, June 10 | Outliers, inference for linear regression | Lab 7 |  |
|  | Lab 8: Intro to linear regression |  |  |
| Friday, June 11 | Buffer day (extra time for leftover stuff) | PS 7 |  |
|  | ---------------------------------------------------------- | ---------- | --------------------------------------------- |
| Monday, June 14 | Intro to multiple regression, model selection | Lab 8 | Start reading Chapter 9 of textbook |
|  | PS 9 assigned |  |  |
| Tuesday, June 15 | Model selection (cont.), model diagnostics PS 8 | | |
|  | Lab 9: Multiple linear regression  AE 9 assigned |  |  |
| Wednesday, June 16 | Logistic regression |  |  |
| Thursday, June 17 | Project presentation (1) | PS 9 |  |
|  | Lab: Project report working time |  |  |
| Friday, June 18 | Project presentation (2) | Lab 9 |  |
|  | ---------------------------------------------------------- | ---------- | --------------------------------------------- |
| Monday, June 21 | Final review | Project report | |
| Tuesday, June 22 | Reading day: no class or lab! |  |  |
| Wednesday, June 23 | Final Exam day  (mainly covers Ch. 6-9 but includes content in Ch. 1-5) | | Open from 12am June 23 to 12pm June 24 |