**CS2993-DS 99153 Data Science Concepts KEP 2005 MW 03:30PM-04:45PM Schoenefeld D**

* This is a modified version of <http://data8.org/fa18> from UC Berkeley.
* This version of the schedule contains TU FA19 hyperlinks; is posted at <https://harvey.utulsa.edu>, and

contains date translation from UCB FA18 lecture three days/wk to TU FA19 lecture two days/wk.)

* Homework & Project links are simply links to TU’s <https://harvey.utulsa.edu>; but, you have access to the UC Berkeley originals on the <https://data8hub.utulsa.edu> server.
* The Video links have not been made public by UC Berkeley. However, <http://data8.org/fa16/> contains video links to the UC Berkeley Fall 16 offering; but, the topic arrangements in Fall 16 differ from the Fall 18 offering.

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| Week |  | Date | Topic | Lecture | Reading | Assignment |
| 1 | Mon - 08/26/19 | Wed 8/22 | Introduction | 01 [Slides](https://docs.google.com/presentation/d/19vL-dNdPTW43z0nuBVyYuVYbfqOKFMK-rNqQ4Xy7ceM/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec01.ipynb&app=notebook) | [1.1](https://www.inferentialthinking.com/chapters/01/1/intro.html), [1.2](https://www.inferentialthinking.com/chapters/01/2/why-data-science.html), [1.3](https://www.inferentialthinking.com/chapters/01/3/plotting-the-classics.html) | [Lab 01: Expressions](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab01%2Flab01.ipynb&app=notebook) |
|  |  | Fri 8/24 | Cause and Effect | 02 [Slides](https://docs.google.com/presentation/d/1qsgvYWMHog9arUcB5nGDR5wXhADEXFTf1-uYIS0mHwU/edit#slide=id.g2fafb72925_1_26) | [2](https://www.inferentialthinking.com/chapters/02/causality-and-experiments.html) | [Homework 01](https://harvey.utulsa.edu/) |
|  |  | Mon 8/27 | Tables | 03 [Slides](https://docs.google.com/presentation/d/1rCV79zjvWJrPoYWJjuFTOqK95o5WAVFLlN5rO9J5V24/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec03.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=5YgNgNF9mBU) | [3](https://www.inferentialthinking.com/chapters/03/programming-in-python.html) |  |
| 2 | Wed – 09/04/19 | Wed 8/29 | Data Types | 04 [Slides](https://docs.google.com/presentation/d/1U6atUUSefKRQt6P-9N9uf24GCljDj7gomnN8oKQNDkU/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec04.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=nMCyqfTCme4) | [4](https://www.inferentialthinking.com/chapters/04/data-types.html), [5](https://www.inferentialthinking.com/chapters/05/sequences.html) | [Lab 02: Types & Sequences](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab02%2Flab02.ipynb&app=notebook) |
| 3 | Mon – 09/09/19 | Fri 8/31 | Building Tables | 05 [Slides](https://docs.google.com/presentation/d/1heY1Q1Wz9zhilopNKfH3xUTFXbC_R8YGu8V98110CRE/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec05.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=Vin-4xbVihY) | [6.1](https://www.inferentialthinking.com/chapters/06/1/sorting-rows.html), [6.2](https://www.inferentialthinking.com/chapters/06/2/selecting-rows.html) | [Homework 02](https://harvey.utulsa.edu/) |
|  |  | Wed 9/5 | Charts; Census | 06 [Slides](https://docs.google.com/presentation/d/1mmwcYfkqckPRQRhDl8fX6rAr0mCFmXv0Up5ReB44X04/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec06.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=excu_k_EzqE) | [7](https://www.inferentialthinking.com/chapters/07/visualization.html), [7.1](https://www.inferentialthinking.com/chapters/07/1/visualizing-categorical-distributions.html), [6.3](https://www.inferentialthinking.com/chapters/06/3/example-trends-in-the-population-of-the-united-states.html), [6.4](https://www.inferentialthinking.com/chapters/06/4/example-gender-ratio-in-the-us-population.html) | [Lab 03: Arrays & Tables](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab03%2Flab03.ipynb&app=notebook) |
|  |  | Fri 9/7 | Census | 07 [Slides](https://docs.google.com/presentation/d/1Z-vH19A0HbSjR_eoHkmGrmXBIwfuRUaNIZEgcuvWxj0/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec07.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=2-y853rUto4) | [6.3](https://www.inferentialthinking.com/chapters/06/3/example-trends-in-the-population-of-the-united-states.html), [6.4](https://www.inferentialthinking.com/chapters/06/4/example-gender-ratio-in-the-us-population.html) | [Homework 03](https://harvey.utulsa.edu/) |
| 4 | Mon – 09/16/19 | Mon 9/10 | Histograms | 08 [Slides](https://docs.google.com/presentation/d/1RLWXrHM21-VyoGrnAxB0rk2L0jLSdzJ07rx0ZpDWhsE/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec08.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=VjW_qbsBeS4) | [7.2](https://www.inferentialthinking.com/chapters/07/2/visualizing-numerical-distributions.html), [7.3](https://www.inferentialthinking.com/chapters/07/3/overlaid-graphs.html) | [hw01 and hw02 due](https://harvey.utulsa.edu/) |
|  |  | Wed 9/12 | Functions | 09 [Slides](https://docs.google.com/presentation/d/1fKiZnWOnlXY7K8SOEyHQnMQdch4qBACnG0JcSN7Hg4M/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec09.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=o31r-RlwQ3w) | [8](https://www.inferentialthinking.com/chapters/08/functions-and-tables.html), [8.1](https://www.inferentialthinking.com/chapters/08/1/applying-a-function-to-a-column.html) | [Lab 04: Histograms & Functions](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab04%2Flab04.ipynb&app=notebook) |
|  |  | Fri 9/14 | Groups | 10 [Slides](https://docs.google.com/presentation/d/1q8UjMKnQ-raeOWkWGKKG6RDRZrnwJQwmOcD50vs6B1s/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec10.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=Ftl8kjYqJQY) | [8.2](https://www.inferentialthinking.com/chapters/08/2/classifying-by-one-variable.html), [8.3](https://www.inferentialthinking.com/chapters/08/3/cross-classifying-by-more-than-one-variable.html) | [Homework 04](https://harvey.utulsa.edu/)  [Project 1: World Progress](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Fproject%2Fproject1%2Fproject1.ipynb&app=notebook) |

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| 5 | Mon – 09/23/19 | Mon 9/17 | Joins | 11 [Slides](https://docs.google.com/presentation/d/1IHxPh_YSYbRhzG2Dik7nIBTv7ES7YWXljzTOS_nwXoc/edit#slide=id.g330ac6d53b_0_0), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec11.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=urXJaqaxGMc) | [8.4](https://www.inferentialthinking.com/chapters/08/4/joining-tables-by-columns.html) |  |
|  |  | Wed 9/19 | Table Examples | 12 [Slides](https://docs.google.com/presentation/d/1XrjSjGQxnEaQhYwgernSDUdpAR8u4z_Tkup4h9mHz5A/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec12.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=TDzpO6COwsc) | [8.5](https://www.inferentialthinking.com/chapters/08/5/bike-sharing-in-the-bay-area.html) | [Lab: Project 1](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Fproject%2Fproject1%2Fproject1.ipynb&app=notebook) |
|  |  | Fri 9/21 | Iteration | 13 [Slides](https://docs.google.com/presentation/d/1avEYU39oA94Af-UA2-ApenH7SfaaGAVkz3JWmuac_4Y/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec13.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=luyLXcZ0bHw) | [9](https://www.inferentialthinking.com/chapters/09/randomness.html), [9.1](https://www.inferentialthinking.com/chapters/09/1/conditional-statements.html), [9.2](https://www.inferentialthinking.com/chapters/09/2/iteration.html), [9.3](https://www.inferentialthinking.com/chapters/09/3/simulation.html) | [Homework 05](https://harvey.utulsa.edu) |
| 6 | Mon – 09/30/19 | Mon 9/24 | Chance | 14 [Slides](https://docs.google.com/presentation/d/1-G-Wh5KdylK1YogRjdznIz9GMkCcdtzYbqC6a0zwGio/edit#slide=id.g2fafb72925_1_26), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec14.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=MSyu-KqK6I0) | [9.4](https://www.inferentialthinking.com/chapters/09/4/monty-hall-problem.html), [9.5](https://www.inferentialthinking.com/chapters/09/5/finding-probabilities.html) |  |
|  |  | Wed 9/26 | Sampling | 15 [Slides](https://docs.google.com/presentation/d/1OH-sH5H5QrEn9LXldl6OlwUAJ627cwz-CGVpY_N312U/edit#slide=id.g30c77890ad_0_0), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec15.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=B7w9L4hTHKg) | [10](https://www.inferentialthinking.com/chapters/10/sampling-and-empirical-distributions.html), [10.1](https://www.inferentialthinking.com/chapters/10/1/empirical-distributions.html), [10.2](https://www.inferentialthinking.com/chapters/10/2/sampling-from-a-population.html) | [Lab 05: Sampling](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab05%2Flab05.ipynb&app=notebook) |
|  |  | Fri 9/28 | Models | 16 [Slides](https://docs.google.com/presentation/d/14AudfdeiY5_QcYfG6FLVCT2HHtcCGseFcO9lanFujHE/edit#slide=id.g30c77890ad_0_0), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec16.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=mE8QmdsIYCw) | [10.3](https://www.inferentialthinking.com/chapters/10/3/empirical-distribution-of-a-statistic.html) | [Homework 06](https://harvey.utulsa.edu) |
| 7 | Mon – 10/07/19 | Mon 10/1 | Comparing Distributions | 17 [Slides](https://docs.google.com/presentation/d/1YuipBjUJUVrf2HchXcVZinF8xOX_9xGsJRFx-Akzxa8/edit), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec17.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=T80Lz-cuo58) | [11.1](https://www.inferentialthinking.com/chapters/11/1/assessing-models.html), [11.2](https://www.inferentialthinking.com/chapters/11/2/multiple-categories.html) |  |
|  |  | Wed 10/3 | Decisions and Uncertainty | 18 [Slides](https://docs.google.com/presentation/d/13w6a29MV41DZzUtW7so92ea88suDYYcwTpVzC6uH9_U/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec18.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=r6FudONBC8U) | [11.3](https://www.inferentialthinking.com/chapters/11/3/decisions-and-uncertainty.html) | [Lab 06: Assessing Models](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab06%2Flab06.ipynb&app=notebook) |
|  |  | Fri 10/5 | A/B Testing | 19 [Slides](https://docs.google.com/presentation/d/14EGHGQi24DOlK2gM2q8NmJKUQKxXMCbsuuJD_C6JhGM/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec19.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=zE4_wh7ivYU) | [12.1](https://www.inferentialthinking.com/chapters/12/1/ab-testing.html), [12.2](https://www.inferentialthinking.com/chapters/12/2/deflategate.html) | [Homework 07](https://harvey.utulsa.edu/) |
| 8 | Mon – 10/14/19 | Mon 10/8 | Causality | 20 [Slides](https://docs.google.com/presentation/d/16EK-k-h1u0BXdLIeO91Aw3rGvMJ1LSdnwsJpHyxgNsA/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec20.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=mNI63u-Xa1E) | [12.3](https://www.inferentialthinking.com/chapters/12/3/causality.html) |  |
|  |  | Wed 10/10 | Examples | 21 [Slides,](https://docs.google.com/presentation/d/1PTaV4MxpXZferIDU7aObaUxws6eYZ6aSuv2LOaygACs/edit?usp=sharing) [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec21.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=SN7sevs4G3o) | [12.2](https://www.inferentialthinking.com/chapters/12/2/deflategate.html) | Lab: Midterm Review |
|  |  | Fri 10/12 | Midterm Review | 22 [Slides](https://docs.google.com/presentation/d/1iyLyM3zjom829XOEyv_xq-s5AvObO9FdEC-eC9Tbk2w/edit#slide=id.g30c77890ad_0_0), [Video](https://www.youtube.com/watch?v=WiHLmHycmo0) |  |  |
| 9 | Mon – 10/21/19 | Mon 10/15 | Confidence intervals | 23 [Slides](https://docs.google.com/presentation/d/1kL_iy4TRl8WPlmrhDpKeysbn5CpC3e-lY7h0nhtZRSk/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec23.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=SqKIB2F_3wo) | [13](https://www.inferentialthinking.com/chapters/13/estimation.html), [13.1](https://www.inferentialthinking.com/chapters/13/1/percentiles.html), [13.2](https://www.inferentialthinking.com/chapters/13/2/bootstrap.html) |  |
|  |  | Wed 10/17 | Interpreting Confidence | 24 [Slides](https://docs.google.com/presentation/d/1mxjWvvcyju4LB5WosL6gpvxXllyvAV9qkEkFBqbzbaU/edit#slide=id.g30c77890ad_0_0), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec24.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=mWVnYFf8aWc) | [13.3](https://www.inferentialthinking.com/chapters/13/3/confidence-intervals.html), [13.4](https://www.inferentialthinking.com/chapters/13/4/using-confidence-intervals.html) | [Lab 07: Bootstrap](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab07%2Flab07.ipynb&app=notebook) |
|  |  | Fri 10/19 | Center and Spread | 25 [Slides](https://docs.google.com/presentation/d/1_1H_C63NLbsvvDzEzCsdx1Y3hv-_mKN4yabSWv8KXgA/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec25.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=km2thVE6mfs) | [14](https://www.inferentialthinking.com/chapters/14/why-the-mean-matters.html), [14.1](https://www.inferentialthinking.com/chapters/14/1/properties-of-the-mean.html), [14.2](https://www.inferentialthinking.com/chapters/14/2/variability.html) | [Homework 08](https://harvey.utulsa.edu/)  [Project 2: Diet and Disease](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Fproject%2Fproject2%2Fproject2.ipynb&app=notebook) |
| 10 | Mon – 10/28/19 | Mon 10/22 | The Normal Distribution | 26 [Slides](https://docs.google.com/presentation/d/1ZzUhFhahjzdo0Hk9WZ3BYZaCBPAzbrjybrNQ8Ho3ZQU/edit?usp=sharing), [Demos,](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec26.ipynb&app=notebook) [Video](https://www.youtube.com/watch?v=zdoU0pa4rRg) | [14.3](https://www.inferentialthinking.com/chapters/14/3/sd-and-the-normal-curve.html), [14.4](https://www.inferentialthinking.com/chapters/14/4/central-limit-theorem.html) |  |
|  |  | Wed 10/24 | Sample Means | 27 [Slides](https://docs.google.com/presentation/d/1S_05YvW3hWgw2St25i5JhUoK43xnaDeabjGL-Kzt9mU/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec27.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=vSdvRUCEadY) | [14.5](https://www.inferentialthinking.com/chapters/14/5/variability-of-the-sample-mean.html) | [Lab: Project 2](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Fproject%2Fproject2%2Fproject2.ipynb&app=notebook) |
|  |  | Fri 10/26 | Designing Experiments | 28 [Slides](https://docs.google.com/presentation/d/1rNdJ_4oxSjZrI1fpKUF8tREOmGQoZCP6yojBocRXgnI/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec28.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=nv8ZDKRa5dE) | [14.6](https://www.inferentialthinking.com/chapters/14/6/choosing-a-sample-size.html) | [Homework 09](https://harvey.utulsa.edu/) |
| 11 | Mon – 11/04/19 | Mon 10/29 | Correlation | 29 [Slides](https://docs.google.com/presentation/d/1SGXvbpAI4-OguFL_lGI75hycHHcFK2x1o0gDDfQNo10/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec29.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=8uvkDzmMfeY) | [15](https://www.inferentialthinking.com/chapters/15/prediction.html), [15.1](https://www.inferentialthinking.com/chapters/15/1/correlation.html) |  |
|  |  | Wed 10/31 | Linear Regression | 30 [Slides](https://docs.google.com/presentation/d/1Y5KW3hPPzOGDx_RgijBwEfAbODug9L6KkbECpDMZr4U/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec30.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=rtlPWU3AeA8) | [15.2](https://www.inferentialthinking.com/chapters/15/2/regression-line.html) | [Lab 08: Correlation](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab08%2Flab08.ipynb&app=notebook) |
|  |  | Fri 11/2 | Least Squares | 31 [Slides](https://docs.google.com/presentation/d/1JesVkeSG0sFubCwKUXvsHnYOdQWLITKBK78DA9h02A0/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec31.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=VResWvi-fPg) | [15.3](https://www.inferentialthinking.com/chapters/15/3/method-of-least-squares.html), [15.4](https://www.inferentialthinking.com/chapters/15/4/least-squares-regression.html) | [Homework 10](https://harvey.utulsa.edu/) |
| 12 | Mon – 11/11/19 | Mon 11/5 | Residuals | 32 [Slides](https://docs.google.com/presentation/d/1p-BYiLOjXOY69t0SXPCpBmUgerJfxOKjDd_PBL8JWcM/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec32.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=ll_479KPXhk) | [15.5](https://www.inferentialthinking.com/chapters/15/5/visual-diagnostics.html), [15.6](https://www.inferentialthinking.com/chapters/15/6/numerical-diagnostics.html) |  |
|  |  | Wed 11/7 | Regression Inference | 33 [Slides](https://docs.google.com/presentation/d/14XBch78qDOSHv_ht4RM4AAS1Cjgjr8GFgoREugoDSZI/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec33.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=5O1KFS7E0aM) | [16](https://www.inferentialthinking.com/chapters/16/inference-for-regression.html) | [Lab 09: Regression](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab09%2Flab09.ipynb&app=notebook) |
|  |  | Fri 11/9 | Classification | 34 [Slides](https://docs.google.com/presentation/d/1jRd8isUssUDGpOnTrCjoJy4u8ZQT58DWg4D-YfehDY0/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec34.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=nWfE99k-yY4) | [17](https://www.inferentialthinking.com/chapters/17/classification.html), [17.1](https://www.inferentialthinking.com/chapters/17/1/nearest-neighbors.html), [17.2](https://www.inferentialthinking.com/chapters/17/2/training-and-testing.html), [17.3](https://www.inferentialthinking.com/chapters/17/3/rows-of-tables.html) | [Homework 11](https://harvey.utulsa.edu/)  [Project 3: Classifying Movies](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Fproject%2Fproject3%2Fproject3.ipynb&app=notebook) |
| 13 | Mon – 11/18/19 | Mon 11/12 | Holiday: No Lecture |  |  |  |
|  |  | Wed 11/14 | Classifiers | 35 [Slides](https://docs.google.com/presentation/d/1MaUcUnFrMGS7DTNje48B3OxNR3pHfQ-eaAJYWmCoacQ/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec35.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=-QcNEeh1gRg) | [17.4](https://www.inferentialthinking.com/chapters/17/4/implementing-the-classifier.html) | [Lab: Project 3](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Fproject%2Fproject3%2Fproject3.ipynb&app=notebook)  [Homework 12](https://harvey.utulsa.edu/) |
|  |  | Mon 11/26 | Decisions | 36 [Slides](https://docs.google.com/presentation/d/1FCpgYfKQ-YAsDpRDp4xeHr4bN-Nit6V3KNpJalPQ5j4/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec36.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=9EOZN508n2g) | [18](https://www.inferentialthinking.com/chapters/18/updating-predictions.html) |  |
| -- | Mon – 11/25/19 |  | Fall Break | | | |
| 14 | Mon – 12/02/19 | Wed 11/28 | Privacy | 37 [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec37.ipynb&app=notebook), [Video](https://www.youtube.com/watch?v=vscSRsUlbrY) |  | [Lab 10: Decisions](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=materials%2Ffa18%2Flab%2Flab10%2Flab10.ipynb&app=notebook) |
|  |  | Fri 11/30 | Case Studies | 37,38? [Slides](https://docs.google.com/presentation/d/1zxXndmbCQfeiq3Mq-bAEJ2YZ2C9tzEpCgWyrWzXyvBA/edit?usp=sharing), [Demos](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec38.ipynb&app=notebook) |  |  |
|  |  | Mon 12/3 | Review | 38,39? [Slides](https://docs.google.com/presentation/d/10RPGmkD6rII94cGe-VNAu4vnkWaN4smK7Hv12-tKQb4/edit?usp=sharing), [added] [Demo](https://data8hub.utulsa.edu/hub/user-redirect/git-pull?repo=https%3A%2F%2Fgithub.com%2Fschoend%2Fmaterials-fa18&subPath=lec%2Flec39-live.ipynb&app=notebook) (?) [Video](https://www.youtube.com/watch?v=0YQg8fV2dFI) |  |  |
| 15 | Mon – 12/09/19 | Wed 12/5 | Lead Review 1 | 40 [Video](https://www.youtube.com/watch?v=TZ3LXHm__7U) |  |  |