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| **Dates** | **Class topic** | **Assignments due** |
|  | **Motivation and review** | |
| 1/31/17 | Class overview |  |
| 2/2/17 | Statistics review |  |
|  | **Module 1: Association studies** | |
| 2/7/17 | Introduction to association studies |  |
| 2/9/17 | Statistical methods for association studies and simulation experiments | Journal: 2/12 11:59PM |
| 2/14/17 |  |
| 2/16/17 | Association studies: wrap-up | Journal: 2/19 11:59PM  Final project milestone 1: 2/19 11:59PM |
|  | **Module 2: Causal Inference** | |
| 2/21/17 | Fundamental ideas in causal inference |  |
| 2/23/17 | Study designs in causal inference | Journal: 2/26 11:59PM |
|  | **Module 3: Survey Analysis** | |
| 2/28/17 | Introduction to survey methods |  |
| 3/2/17 | Statistical methods for survey analysis and simulation experiments | Journal: 3/5 11:59PM |
| 3/7/17 |  |
| 3/9/17 | Survey analysis: wrap-up | Journal: 3/12 11:59PM |
|  | **Module 4: Miscellaneous topics** | |
| 3/14/17 | Missing data, imputation, clustering, networks |  |
| 3/16/17 | Journal: 3/19 11:59PM  Final project milestone 2: 3/19 11:59PM |
| **Spring Break: 3/20/17-3/26/17** | | |
|  | **Module 5: Survival Analysis** | |
| 3/28/17 | Introduction to survival studies |  |
| 3/30/17 | Statistical methods for survival analysis and simulation experiments | Journal: 4/2 11:59PM |
| 4/4/17 |  |
| 4/6/17 | Survival analysis: wrap-up | Journal: 4/9 11:59PM |
|  | **Module 6: High-Throughput Biology** | |
| 4/11/17 | Introduction to high-throughput technologies |  |
| 4/13/17 | Statistical methods in high-throughput biology and simulation experiments | Journal: 4/16 11:59PM  Final project milestone 3: 4/16 11:59PM |
| 4/18/17 |  |
| 4/20/17 | High-throughput biology: wrap-up | Journal: 4/23 11:59PM |
|  | **Module 7: Bayesian Statistics** | |
| 4/25/17 | Paradigm shift and fundamental ideas |  |
| 4/27/17 | Applications | Journal: 4/30 11:59PM |
|  | **Final presentations** | |
| 5/2/17 | Presentations: day 1 |  |
| 5/4/17 | Presentations: day 2 |  |
| **Final project paper due Wednesday, 5/17 5PM** | | |