**BIOS 6621 class log Fall 2019**

**Day 1**

* Introduction, syllabus, etc
* Syllabus, CANVAS
* Notes Introduction
* Hard and soft skills; Situational awareness; High levels (analysis, evaluation, synthesis)
* Managing files and projects
* Notes sect 1.5
* CIDA slides
* Getting papers from library
* HW 1 – Basic R

**Day 2**

* Katerina Reproducible Research
* HW 2 - Rmarkdown

**Day 3**

* HW 1 feedback and comments (R and coding)
* Practice consult on VA data examination – brief
* Section 1.3 of notes – questioning investigators

**Day 4**

* HW 2 feedback and comments (Rmarkdown)
* Practice consult on VA data examination
* Handouts on data examination
* HW 3 – Data examination

**Day 5**

* SIC 1: P-values, discussion
* Practice consult on Table 1
* Example Table 1
* HW 4 – Table 1

**Day 6**

* HW 3 feedback and comments (Data checking)
* Data visualization and graphs

- Handouts on data visualization

* HW 5 – Graphs

**Day 7**

* HW 4 feedback and comments (Table 1)
* Practice consult – longitudinal exercise data, M vs F
* Formulating questions
* Sect 1A of notes
* HW 6 – Formulating questions

**Day 8**

* HW 5 feedback and comments (graphs)
* Transforming data
* Rainfall data; animals data
* Interpreting transformed results
* Transformation handouts

**Day 9**

* HW 6 feedback and comments (formulating questions)
* Short topics 1-15

**Day 10 – class cancelled due to snow**

**Day 11**

* SIC 2 feedback and comments
* Practice consult – sample size
* Power and sample size – Ch 3 of notes
* HW 7 – Sample size estimation for zinc absorption study

**Day 12**

* SIC 2: Wilcoxon vs T discussion
* Selecting analyses – Ch 5 of notes
* HW 8 – Selecting analysis; alfuzosin analysis

**Day 13**

* HW 7 feedback and comments
* Practice consult – power and sample size for binary outcomes, med adherence
* HW 9 – Sample size for med adherence
* HW 10 – Post hoc power

**Day 14**

* Statistical ethics – Maxie Meier

**Day 15**

* HW 8 feedback and comments
* HW 9 feedback and comments
* Multilevel models
* Course review