Stat/QSci 403A - Intro to Resampling Inference Spring 2014

Instructor: Vladimir Minin, office: Padelford Hall C-315

TA: Shuliu Yuan, office: see course web page

Time: *Lectures*: Mondays & Fridays, 9:30 – 10:20 am, *Labs*: Wednesdays, 9:30 – 11:20 am

Place: *Lectures*: LOW 102, *Labs*: MGH, room 030

Office Hours: Vladimir Minin – Wednesdays, 3:00 – 4:30 pm or by appointment (`vminin@uw.edu`.); Shuliu Yuan – TBD or by appointment (`yuansl@uw.edu`)

Course Web Page: `canvas.uw.edu/courses/900042/`

Course Text: none

Recommended Reading:

- M.L. Rizzo. "Statistical Computing with R", Chapman and Hall/CRC, 2008.
- B.F.J. Manly. "Randomization, Bootstrap, And Monte Carlo Methods In Biology," 3rd edition, Chapman and Hall/CRC, 2006.

Prerequisites: I expect you to know basic concepts in probability and mathematical statistics. I also assume that you will be able to write short programs to analyze data. We will be using R (`www.r-project.org`).

Grading: Grades will be assigned based on weekly homework assignments (60%), midterm proposal (10%), class/lab participation (5%), and final data analysis project (25%).

Homework: I will assign 7-9 homework assignments. The due dates will be announced in class and posted on the class discussion board. **Homework turned in late will receive 0 points**.

Labs: We will go through many computational exercises during lab session. Attending lab sessions will be critical for successfully completing homework assignments and the final project.

Final project: In your group final project, you will perform original data analysis using resampling methods. I will ask you to turn in a proposal for the final project around week 5 or 6. For your final report, you must turn in a 5–7 page document no later than **on Wednesday, June 12th**. Each group will also deliver a short oral presentation of your findings in the last week of classes. I will provide guidelines on the format of your report and presentation later in the quarter.