Course Number and Name: NUTR 207: Statistical Methods for Nutrition Science and Policy
Instructor Name and Email: Sean B. Cash, sean.cash@tufts.edu

Course Description:
In this class we will explore statistical techniques for analyzing social science data, with specific applications to nutrition, food policy, agriculture and the environment. Although it is necessary to teach some theory, it is our intent that the course be practical and user-oriented. The primary goal here is to learn how to analyze data in ways that will be useful in your academic and professional careers, both in conducting your own work and critically assessing the work and claims of others. This is a first semester graduate course in statistics required for most students in the AFE, FANPP, and NICBC programs.

Organization of this course based on the definition below is: (primarily) online.
Teaching Format Definitions: *Online*=course offered remotely either asynchronously or synchronously; *Hybrid*=Course offered remotely asynchronously or synchronously with some optional classroom on-campus components; *In-person*=Course offered only in the classroom on-campus.

Details:
The main course components will include several asynchronous lectures each week, frequent online synchronous recitation sessions that are further supported by online discussion threads, asynchronous computer lab exercises, and assessment that will consist of problem sets, participation, and two self-timed online exams.

a. All lectures will be pre-recorded for asynchronous viewing via Canvas. These will be provided as several mini-lectures each week. The course is not self-paced (i.e., students are expected to work on the material one week at a time), but students may choose when and how often to watch each of these mini-lectures.
b. Every weekday, there will be an online, real-time recitation session over Zoom. These recitation sessions will be scheduled at a variety of times to facilitate participation for students located outside of Boston, as well as to avoid scheduling conflicts. Each student is expected to attend at least one session each week, but may attend as many sessions in a week as desired. These sessions will start with a review of the previous week's material and a new data-based example (~20 minutes), and will then proceed to question-and-answer driven office hours (~40 minutes). These sessions will *not* be recorded to facilitate unencumbered and open discussion among students.
c. If feasible and safe, the Wednesday afternoon (1:30 – 2:30 pm) recitation session will be offered in-person in Jaharis (as well as broadcast over Zoom) for students who prefer to participate in discussion in person.
d. Additional opportunities for question-and-answer will be provided through online (asynchronous) discussion threads hosted on Canvas, and answers will be posted for reference by all students.
e. Computer lab components will be offered asynchronously as pre-recorded sessions, designed for students to start and stop frequently while working through the activities at their own pace. All students in the class will be given a temporary educational license that will allow them to install Stata software on their personal machine.
f. Assessment will be based on four large problem sets, a self-timed midterm and final exam, and participation (based on regular attendance at a recitation session, mini-quizzes, and completion of the human subjects ethics certification course).

Pedagogical and/or Practical Rationale:
NUTR 207 is a large class that is required for most new Friedman students, and is largely composed of technical material that is not well-suited for lengthy online meetings. The move to a primarily online, asynchronous course with several mini-lectures available each week is necessary to ensure accessibility of the class to all students who require it. The asynchronous lecture components will be complemented with frequent (daily) online real-time recitation offerings so that all students will have access to the instructional team to ask questions and go over examples in smaller groups.