From the calendar:

This course is a continuation of STA2112H. It is designed for graduate students in statistics and biostatistics. Topics include: Likelihood inference, Bayesian methods, Significance testing, Linear and generalized linear models, Goodness-of-fit, Computational methods

Prerequisite: STA2112H

I will definitely cover the first 3 topics, and the 5th, and we'll see how time goes for the others. "Computational methods" was probably meant to be shorthand for "bootstrap" and "MCMC", and will be touched on in the other topics.

The slides for the lectures will be posted, on good weeks before the scheduled course time, and on rushed weeks just after.

We will use Piazza for discussion; you will find an entry for Piazza in the course menu. If you click it, you will be asked to sign up. Please see the instructions in the handout, especially the highlighted bits.

Grading:

The course grade will be 60% homework, 40% take-home final. There will be ten weekly homework questions assigned each Tuesday, due the following Tuesday. The two lowest homework marks will be dropped. The take-home final will be released April 4, due April 18 (tentative).

Academic Integrity:

Discussion about your work with your classmates is encouraged, but the homework solutions you submit must be written, and coded, independently. You may use code provided by by me without attribution, but you must acknowledge code taken from any other source using a proper bibliographic reference. To protect yourself from potential academic integrity offences, do not share your code and written submissions. The University of Toronto's Code of Behaviour on Academic Matters is available at http://academicintegrity.utoronto.ca.

Texts:

[MS] Knight, K. (1999). *Mathematical Statistics*. Cambridge University Press, Cambridge.

[AoS] Wasserman, L. (2004). All of Statistics. Springer-Verlag, NY. [Chapters 9–12]

[SM] Davison, A.C. (2003). *Statistical Models*. Cambridge University Press, Cambridge. [Chapters 4, 7, 11]

Recommended

Efron, B. and Hastie, T. (2016). *Computer Age Statistical Inference*. Cambridge University Press, Cambridge.

Casella, G. and Berger, R.L. (2001). *Statistical Inference*. 2nd edition. Springer, New York.

Course web page(s):

The course materials will be posted to the web page https://utstat.toronto.edu/reid/html/sta/sta2212s.html. The Quercus page for STA2212H will lead you to this page. I will use Quercus for discussion (via Piazza), homework reminders and grades management.

Contact: Nancy Reid: nancym.reid@utoronto.ca

Office Hours: Monday 7-8 pm (Zoom); Tuesday 4-5 pm (Hydro Building 9124)

Teaching Assistant: Junhao Zhu jh.zhu@mail.utoronto.ca

Computing:

I will always refer to the R computing package and I highly recommend the RStudio environment.

R

R Studio

I strongly recommend using R Markdown or LateX to prepare your homework. For questions involving computing you will need to submit working code. This is easy in R Markdown, but R scripts will also be accepted. Neat homework makes it easier on the grader, and a happy grader is a generous grader.