# Logistic regression assumptions and diagnostics

## Multicollinearity

## **Class activity**

https://sta711-s23.github.io/class\_activities/ca\_lecture\_11.html

- Simulate correlated data
- Assess the impact on estimated coefficients

## The impact of multicollinearity

## Variance inflation factors

#### Addressing model issues

How should we handle each of the following issues in a fitted model?

- Violations of the shape assumption
- An influential point with high Cook's distance
- High multicollinearity in the explanatory variables

Discuss with your neighbor for 3--5 minutes, then we will discuss as a group.