Assign 4 of 16 students to each of the following pairings of two papers. We will have an in class exercise where we split into groups and each group explain some of what they learned reading their respective papers. Students should identify 3-5 main takeaways from the papers assigned to them. Some suggestions of how to digest an academic paper are here: http://courses.washington.edu/b581/how_to.html

- Phasing and imputation:
  - https://www.nature.com/articles/nrg3054
  - https://www.annualreviews.org/doi/abs/10.1146/annurev-genom-083117-021602
- Quality control:
  - https://onlinelibrary.wiley.com/doi/10.1002/gepi.20516
  - https://academic.oup.com/genetics/article/218/1/iyab044/6171183
- Burden tests:
  - https://journals.plos.org/plosgenetics/article?id=10.1371/journal.pgen.1000384
  - https://www.sciencedirect.com/science/article/pii/S0002929711002229?via%3Dihub
- Polygenic scores and GWAS:
  - https://www.nature.com/articles/s43586-021-00056-9
  - https://www.nature.com/articles/s41596-020-0353-1

Additional papers of interest for further reading:

- Linkage disequilibrium:
  - https://www.nature.com/articles/nrg2361
- Relatedness, pedigrees, and IBD:
  - https://www.frontiersin.org/articles/10.3389/fgene.2021.722602/full
  - http://dx.doi.org/10.1534/genetics.117.1122
  - https://sdtemple.github.io/statgen1
- Fst, population structure:
  - https://onlinelibrary.wiley.com/doi/full/10.1111/j.1755-0998.2010.02927.x
  - https://www.jstor.org/stable/2408641
- Admixture mapping:
  - https://currentprotocols.onlinelibrary.wiley.com/doi/10.1002/cphg.44
- Sequentially Markovian coalescent:
  - https://onlinelibrary.wiley.com/doi/10.1002/ece3.5888

Many, many other papers to mine from:

http://courses.washington.edu/b581/

The above and the associated course are also a great way to conduct a guided literature review with friendly statisticians and related fields at UW.

For more detailed slides and recorded videos of STAT/BIOST 550 Spring 2022, contact Seth Temple: sdtemple@uw.edu.