

The final will cover chapters 2 - 6. It will be open book/ note, but you can't use any resources beyond the course materials. The emphasis will be on the material since the last midterm.

- Anything that was on the previous midterms.
- Compute the covariance of two random variables.
- Compute the expectation and variance of sums of random variables.
- Use representations of complicated random variables as sums of identically distributed random variables to compute its expectation and variance.
- Use the multinomial distribution.
- Compute conditional expectations and use conditional expectations to compute normal expectations and variances.
- Compute the pdf of functions of one or more random variables.
- Compute the moment generating function of sums of independent random variables and use it to identify the standard random variables.
- Compute the distribution of the minimum or maximum of several i.i.d. random variables.
- Anything else that was on the homework.