The final exam is comprehensive over the course material: all lectures and all homework assignments that have been made. Notice that material that appeared on the quiz or test outlines but did not appear on a quiz or test may well appear on the final exam.

Reminder: The final exam is on Monday February 16, 8:30-10:30am, in Olin 106. There will be an optional review session Sunday February 15 at 1:30pm in Bailey 207.

The outline below describes material that has not yet appeared on a quiz or test outline.

- **Work**
  - Basic principle: Work = (Force)(Displacement).
  - Displacement means “net” distance traveled.
  - Pumping problems
    * Set up appropriate coordinate axes and describe the tank in equations.
    * Use a careful picture of the $k$th slice to determine its volume, weight, and displacement, and the work that is done in pumping it out of the tank. The picture should include labels on the appropriate points, along with labels for the corresponding coordinates on the $x$-axis and $y$-axis (“transfer” the coordinates to the axes).
    * Express the total work done in emptying the tank, first as the limit of a Riemann sum, and then as a definite integral.