Make sure you can do the following without hesitation:

- Evaluate double integrals.
- Use a double integral to compute an area of a region in the plane.
- Use a double integral to compute the area of a surface in space.
- Switch the order of integration of double and triple integrals.
- Use double integrals and triple integrals to compute volumes of solids.
- Use polar, cylindrical and spherical coordinates to evaluate integrals.
- Sketch a vector field.
- Determine whether or not a vector field is conservative.
- Find a potential function for a conservative vector field.
- Compute the curl and divergence of a vector field.
- Parameterize a piecewise smooth curve.
- Evaluate a line integral of a function $f$ over a curve $C$.
- Evaluate a line integral of a vector field $F$ over a curve $C$.
- Compute the work done by a vector field on a particle as it moves along a curve.
- Use the Fundamental Theorem of Line Integrals.
- Compute the surface area of a parameterized surface.