1. Apply the definition of average velocity to solve for an unknown quantity, given the appropriate information. (sections 2.1, 2.3)
2. Apply the definition of average acceleration to solve for an unknown quantity, given the appropriate information. (section 2.4)
3. Use kinematics equations with constant acceleration (such as those on the formula sheet) to solve problems for an unknown, given the appropriate information. (section 2.5)
4. Apply the kinematics equations with constant acceleration (such as those on the formula sheet) to solve problems involving falling objects, given the appropriate information. (section 2.7)
5. Apply the relationships between the slopes of the graphs and the definition of average and instantaneous velocity and average and instantaneous acceleration. For example, be able to use the rate of change on the x vs. t graph to find a velocity. (section 2.8)
6. Reduce a vector into its x- and y-components and combine x- and y-components to make the resultant vector. (section 3.3)
7. Add and subtract up to three vectors analytically using trigonometry. This includes the ability to reduce a vector into its x- and y-components. (section 3.3)
8. Use the kinematics equations and knowledge of the independence of x- and y-motion to solve for an unknown quantity for a projectile. (section 3.4)

The test will be based on content from chapters 2-3 in your textbook and Expert TA as supported by associated videos and lab activities. The items on the test will be similar to sample problems in the textbook as well as Expert TA practice, homework, and quiz items. There is a basic formula sheet on Canvas. But, since this is an open book and open note test, you may use any other formulas, as well. You may not seek the help of classmates or anyone else.