

Study Guide for Engr 1201 Assessment 3

Know the definitions of the following:

- Ideal mechanical advantage
- Force
- Work
- Power
- Torque
- Conservation of Energy
- Voltage
- Current
- Direct Current (batteries, solar cells, electronic circuits, mass transit)
- Alternating Current (appliances)
- Kirchhoff's Current Law (KCL)
- Kirchhoff's Voltage Law (KVL)
- Conjunction
- Disjunction

Know the formulas for IMA for each of the following, and be prepared to solve for IMA for numerical examples:

- Incline
- Lever
- Wheel and Axle
- Wedge
- Pulley
- Screw

Be prepared to work out problems in the following areas:

- Find the equivalent resistance in a Series Connection
- Find the equivalent resistance in a Parallel Connection
- Find unknown currents using KCL
- Find unknown voltages using KVL
- Identify statements as True, False, or Neither
- Write the negative of a statement
- Simplify statements as true or false using conjunction and disjunction ($T \wedge \sim F \vee T \wedge F$ and $T \wedge F \vee T$, etc.)
- Precedence of lines in orthographic views
- Proper representation of hidden lines, visible lines, and center lines in orthographic views
- Determine the output of a simple program

Assessment 3 Summary:

- 80 % – In-Class Written Exam
- 20 % – Take-home Excel/PowerPoint Project