J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: **PHY 202** **Credits:** **4**

Course Title: **General College Physics II**

Course Description:

Circuits

- Define capacitance and describe how it relates to charge and electric potential
- Calculate the capacitance of a parallel-plate capacitor using the geometry of the capacitor
- Calculate the equivalent capacitance for series and parallel combinations of capacitors
- Define current and relate it to the flow of charges
- Define resistance in terms of resistivity and geometry for a resistor
- Define and apply Ohm’s law
- Identify ohmic and non-ohmic materials based on I-V graphs
- Calculate the equivalent resistance for series and parallel combinations of resistors
- Define batteries as sources of constant electric potential in a circuit
- Differentiate between ideal batteries and real batteries
- State Kirchhoff’s laws and apply them to multiloop circuits
- Identify RC circuits and their mechanical equivalents
- Discuss how the electric potential and current varies with time in RC circuits

Magnetism