**Study Guide**
for Unit Exams in Chemistry A

Unit IV: The Periodic Table

The following provides information about the content of this exam. Of course, any topic covered in the unit may be represented on the exam. Please use this sheet as a guide as you study. As always, let me know if you have any questions!

Exam Format:

* 36 Multiple Choice (2 points each)
* 1 Essay (5 points)

Formulas to Know:

* N/A

Material to Review:

* Development of the Periodic Table (Dobereiner, Mendeleev, Meyer)
* The modern Periodic Table and Periodic Law
* Chemical symbols for the most common elements
* Atomic structure (placement of protons, neutrons, and electrons)
* Using the Periodic Table to determine numbers of protons, neutrons, and electrons in a neutral atom, classification of elements, relative physical and chemical properties of a given element
* Representing atoms using Lewis dot structures
* Formation of ions and the naming/representing monatomic ions
* Determining electron configurations using the Periodic Table
* Periodic Table trends including ionization energy, electronegativity, atomic radius, ion radius
* Locating metals, nonmetals, and metalloids and comparing/contrasting the characteristics of each
* Configuration blocks and their significance

Terms to Know:

*(Make sure you can define and discuss each)*

* **Periods**
* **Groups**
* **Metals, nonmetals, and metalloids**
* **Alkali metals**
* **Alkaline earth metals**
* **Chalcogens**
* **Halogens**
* **Noble gases**
* **Valence electrons**
* **Atomic number**
* **Mass number and average atomic mass**
* **Electron affinity**
* **Electronegativity**
* **Ions: anions and cations**
* **Ionization energy**
* **Atomic radius**
* **Lewis dot structures**