CHEM 14A **Audio-Visual Focus-Topics** Dr. Laurence Lavelle

Chem 14A Audio-Visual Focus-Topics are available at the Chem 14A class web-site at:
https://lavelle.chem.ucla.edu/
(Do not click on the above link if you are already at the Chem 14A class web-site. Instead go straight to the section titled **Audio-Visual Focus-Topics, Assessments & Surveys**.)

All students must review the following four Audio-Visual Focus-Topics.
These four modules are essential review of high-school chemistry:

- Empirical and Molecular Formulas
- Balancing Chemical Equations
- Limiting Reactant Calculations
- Molarity and Dilution of a Solution

Pen, paper, calculator, and periodic table are needed for these assessments.
Step 1. Take the pre-assessment. Don't be concerned as you have not yet studied the material!
Step 2. Watch the video. Pause, make notes, and re-watch if you want.
Step 3. Take the post-assessment and brief survey.
These on-line assessments and on-line video modules can be retaken as many times as wanted.

The video format should be compatible with all devices, operating systems, and browsers.
Technical problems: email voh@chem.ucla.edu and include as much detail as possible (OS, browser, etc.), your name and student ID number.

Assessment performance is in no way linked to class grade. Other than being enrolled in Chem 14A we have no idea who is taking the assessments.

In addition read the following sections and topics in your textbook and lecture notes.
Work through the examples and problems in your textbook and lecture notes.
Reading all the Fundamentals sections in your textbook is highly recommended. The following are essential: Fundamentals E, F, G, H, L1-2, M
Appendix 1B, 1C, 1D, 1E
Do Problems E 1, 3, 7, 9, 15, 17, 21, 23, 25, 27, 29; F 1, 3, 5, 9, 11, 13, 15, 17, 19, 23, 25; G 5, 7, 9, 11, 13, 17, 19, 21, 23, 25; H 1, 3, 5, 7, 11, 13, 15, 17, 19, 21; L 1, 3, 5, 7, 35, 39; M 1, 3, 5, 7, 9, 11, 15, 19

By the end of Week 2 all students must have completed the following four modules (pre-assessment, video, post-assessment and survey).

- Photoelectric Effect
- Atomic Spectra and the Bohr Frequency Condition
- Wave Properties of Electrons and the De Broglie Equation
- Heisenberg Uncertainty Equation

These modules are created, developed, and maintained by Dr. Laurence Lavelle to assist students in his classes. Enjoy!