**AP CHEMISTRY 2019-2020 Calendar** **Week 2: 08/19-23/2019**

**Unit 1 Atomic Structure and Properties**

*The chemical elements are fundamental building materials of matter, and all matter can be understood in terms of arrangements of atoms. These atoms retain their identity in chemical reactions.*

**Resources:** Text: Silberberg, Chapters 1-3, 5; OnlineText: Brown, LeMay CH 1-3,6-8- online;

APChem Solutions(APCS) Notes; Class Website: <https://dherman.educatorpages.com/>

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| **Day** | **Agenda** | **Homework**  ***Due the following day unless specified otherwise*.** |
| Mon.  8/19  U-1  A Day | Review & Check HW  Lab Activity/Demo %Comp. of C in Sodium Bicarbonate  [Combustion Analysis](https://www.youtube.com/watch?v=pkDaeiuK7C8)  Quant II, Prob 13, 14  Lab/Demo: Formula of a Hydrate  WS Formula of a Hydrate  ***Warm-UP Quiz Empirical Formula*** | * Finish Lab Questions * WS Formula of a Hydrate, Prob 5,6,7   ***Binder Check Unit-1 Tues. 08/27***  ***Unit-1 Exam Thur 08/29***  ***Study Group Session due 08/29*** (signed/dated list of participants – extra credit if in my room) |
| Tues.  8/20  U-1  B Day |  | * Read and Preview Notes on notebook paper: * 1.2 Mass Spectroscopy of Elements * Photoelectron Spectroscopy and Electron   Configuration |
| Wed.  8/21  A Day | Review & Check HW  *Grade Hydrate Lab*  [You Tube Spectrometry: Chemistry for all](https://www.youtube.com/watch?v=sTi--ixdAME)  Notes: 1.2 Mass Spectroscopy of Elements  PES Power Point, work problems  ***Warm-UP Quiz Hydrate*** | * WS: 1.2 Mass Spectroscopy of Elements, Prob 1-9   *Not required: If you need help watch Melissa work problems:* [Isotopes, Percent Abun., Atomic Mass](https://www.youtube.com/watch?v=ZtKuHxJXH6I)   * Finish WS: Photoelectron Spectroscopy & Electron Configuration, Prob 1-9   *Not required: If you need help watch Mrs. Portwoods work problems* [PES Mrs. Portwoods Class](https://www.youtube.com/watch?v=NRIqXeY1R_I) |
| Thur.  8/22  U-1  B Day |  | * Read and Preview Notes on notebook paper: * 1.5 Atomic Structure and Electron Configuration * 1.7 Periodic Trends   [Edpuzzle](https://edpuzzle.com/home): Professor Dave Periodic Trends |
| Fri.  8/23  A Day | Review & Check HW  1.5 Atomic Structure and Electron  Configuration  1.7 Periodic Trends  Start Unit-1 Anchor Chart  ***U-1Quiz#2 Empirical & Molecular Formulas/Hydrate/Vocab W2*** | * WS 1.5 Atomic Structure and Electron Configuration   Prob 1,13   * WS Orbital Diagrams, Prob 2,4,6,8,10,12,14 * WS 1.7 Periodic Trends Prob 1-12   *Note: Chem WS 6-2,6-3 are for reference only* *Not required: If you need help watch Melissa explain periodic trends:* [**Periodic Trends: Electronegativity, Ionization Energy, Atomic Radius - TUTOR HOTLINE**](https://www.youtube.com/watch?v=0h8q1GIQ-H4) ***Study for Unit-1 Exam, Thursday 8/29***  No Week 3 Vocabulary |

**Vocabulary- Unit-1, Week 2 – Study on Quizlet**

1. mass percent (also called: mass %, percent by mass, percent composition)
2. empirical formula
3. molecular formula
4. structural formula
5. hydrate
6. gravimetric analysis
7. combustion analysis
8. anhydrate (anhydrous)
9. crucible (lab equipment)
10. Isotope
11. Mass Spectroscopy
12. % Abundance
13. Proton
14. Electron
15. Neutron
16. Average Atomic Mass
17. Ionization energy
18. Coulomb’s Law
19. Equation for the first ionization energy.
20. Inner Core Electrons
21. Valence Electrons
22. Photoelectron Spectra (PES)
23. atomic radius
24. effective nuclear charge (*Z eff*)
25. Shielding Effect
26. electron affinity
27. electronegativity
28. Ionic radius
29. Isoelectronic
30. Aufbau principle
31. Hunds rule