**HONORS CHEMISTRY COURSE HANDBOOK AND SYLLABUS  
RIVERSIDE UNIVERSITY HIGH SCHOOL   
Dr. Wexler  
Semester One 2017-2018**

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“The object of learning is to enable the student to function independently and successfully in the world; this includes the ability to make informed choices”

Welcome to Biology! A detailed description of this course and other pertinent information is included in this handbook/syllabus. Please read and discuss this with your parents or guardian.

**1. TEACHER:** Dr. Wexler **E-mail:** wexlerd1@milwaukee.k12.wi.us

**2. Textbook:** Glencoe: Chemisty – Matter and Change  
 **Website:** drwexler.weebly.com

**3. Required Resources:**  
- Calculator (cheap)  
- Pens, pencils, erasers  
- Biology notebook for lecture notes and other work as assigned.   
- Folder for storing instructional handouts if a non-binder notebook is used.

**Recommended Supplemental Resources:**- Home internet access  
- Markers and highlighters  
- Three-ring binder with tabbed separators for lecture notes and instructional handouts (with hole puncher)  
- Infinite Campus website (MPS)

**4. Philosophy and Approach of Course:**  
 The **Laboratory** is the heart of the course. The design of most laboratory activities is to require the students to communicate a basic understanding of the concepts and make predictions when appropriate (“Pre-Lab”). In some cases the lab will be performed before the topic is discussed at length. Equally important are the discussion and problem-solving questions (which are post-lab) because they give the student an opportunity to solidify understanding and clarify any misconceptions.

**Lab teams** are an essential part of this course. For a team to be successful it cannot rely on one member to do all the work and provide all the answers, although one member may volunteer to serve as team leader. If everyone does not participate constructively (through hands-on work, reading lab instructions, doing calculations, discussion and research, communicating with your instructor), then there is an unfair burden on those who do the work. Teams in this situation have blanket permission to withhold data and answers from any team member who is chronically off-task. In that regard, sometimes team goals are frustrated when one or more members are loud and disruptive. Try to work out the team dynamics with a minimum of instructor intervention.

This course uses the principles of chemistry to develop students’ **problem-solving skills**, **effective group interaction skills**, and **critical thinking skills**. Math skills such as dealing with fractions/ratios and algebra are also an integral component of certain topics in this course (calculating moles, balancing chemical equations are two examples).

**5. Study Skills:**  
This course is an opportunity for you to improve your study skills. A good approach (active) is to quiz yourself (and your study partner) on new as well as previously digested material. A bad approach (passive) is to simply read the textbook or your notes and assume you have learned – you probably haven’t.

**6. Classroom Decorum:**A. All students must remain in their assigned seats unless otherwise instructed.  
B. Do not talk while the teacher is conducting instruction (whether talking or not talking) unless the teacher has called on you to answer a question or you have volunteered to ask or answer a question related to the subject at hand.  
C. Stay on task and focused on learning at all times. Expect to be called on by your instructor to answer a question related to the material you are learning.  
D. Do not use or display electronic devices such as cell phones. You may **not** use a cell phone as a calculator during class. You may **not** plug your device into a wall outlet for recharging. You may **not** wear headphones or earbuds as fashion accessories even if they aren’t plugged into your cell phone.   
E. ***If you display electronics (including headphones or earbuds) you will have one opportunity to immediately give the device to your instructor if asked. In this case the device will be returned at the end of class. If you delay or argue or refuse to turn it over, your parent/guardian will be contacted and you may receive an administrative referral.***   
F. Hall passes: For bathroom emergencies, one student at a time may sign out the classroom hall pass clipboard. This must be signed by the teacher. The clipboard is color coded by floor. Our floor, which is the 4th floor, is pink. The student will be held accountable for returning in a reasonable amount of time (generally 5-8 minutes) and returning the clipboard. Students leaving to see a counselor or administrator or for an approved early dismissal will write their own one-way paper passes (signed by the instructor). These students must be provided with a new pass in order to return to class. Students may **not** leave class to go to their locker. Students are otherwise not allowed in the halls during class for any reason.   
G. Tardy policy: All students must be in class by the bell. Students who are late for Hour 1 will go to the cafeteria. All other periods late students will go to the room 136 tardy room. Tardies will be entered into attendance. Three or more tardies in a 9 week term may result in administrative consequences.  
H. Food items must be stowed in your backpack/bookbag. Eating is not allowed in the classroom due to potential contamination with chemicals.  
I. Progressive Discipline Plan: 1st verbal warning, 2nd verbal warning and conference, parent contact, behavioral referral.

**7. Homework:**Practice work is absolutely required. You must practice your learning if you are to succeed in this course.   
Points for homework and other practice work will be summed together on your Infinite Campus grade report as weekly practice. Your practice grade (effort) will be continually updated and this grade will count as an exam grade.   
Keep this in mind:  
 ***Homework is one of the keys to success because it gives you an opportunity to practice your skills and figure out***    
 ***where you are having difficulties. When this practice leads to greater understanding of the content and success in***   
 ***applying concepts taught in the classroom, you will see the value of taking homework seriously.***

**8. Quizzes:**  
Quizzes are opportunities to develop and demonstrate mastery of each topic. Quizzes count as evidence, but count half as much as tests.

**9. Tests:**  
A test will be usually be given after each topic is presented, practiced and assessed through homework, quizzes and labs. Tests are designed to assess your final mastery of the topic.

**10. Test retakes:**  
During the semester you may take a makeup test in order to improve your grade. Unless otherwise specified you will be required to do the makeup after school.

Keep in mind that there is no point taking a makeup test unless you have made an effective effort to restudy the material.

Tests may not be retaken the last week before final exams.

**11. Final Exam:**There will be a final exam at the end of each semester, worth 25% of your grade for the semester. The final exam will assess your proficiency in **all** the standards learned that semester. Your goal is to know the course content so well that you will not forget it during the school year.

**12. Science Literacy:**All students must be capable writing an argumentative on-demand essay similar to those expected on the ACT. In this course, the essays must relate to chemistry in some manner and will involve making claims based on evidence and logical reasoning. In addition, students will engage in close reading with annotation. Students will also practice reading comprehension skills on a weekly basis using the Achieve3000 program.

**13. Labs:**  
(a) If you were present for a lab then you are required to submit a write-up even if you have an excused absence on the due date (submit the write-up on return). The write-up counts toward your grade for the related standard(s).  
(b) If you miss the hands-on portion of a lab due to an excused absence, you must still do the lab write-up using data supplied to you by your instructor.   
  
**14. Lab Management and Safety:** After the second week, any student who has not submitted a safety contract signed by a parent/guardian will not be allowed to participate in lab activities.

* Safety glasses **must** be worn in the laboratory **at all times** when experiments involving chemicals, glassware and/or heat are being conducted.
* Acetate gloves (non-allergenic) should be worn when handling dangerous chemicals such as strong acids and bases.
* **Do not** bring food into the classroom. You are allowed to have bottled drinks (no cans) at your regular seat, but **not** at the lab bench.
* Become familiar with the location of all safety equipment in the laboratory, including the fire extinguisher, eye wash, safety glasses, fire blanket, and first aid kit.
* Report any accidents to your instructor immediately, including broken glassware.
* Dispose of waste solids such as paper towels in the wastebasket. Dispose of liquid wastes in the sink.
* Any common equipment must be returned clean and dry to the supply bench.
* You must clean your lab equipment and clean the lab tops in preparation for the next class. Leave it cleaner than you found it if this applies, but let me know if it was not cleaned the previous period.

**15. Definition of Academic Grading:**Your academic grade for the course will be based on what you have learned as well as academic effort. Do not expect extra credit for bringing in rolls of paper towels or boxes of tissues. You will also receive a grade for behavior that will count towards your final grade for the course.

**16. Infinite Campus Gradebook and Standards-Based Grading:**All of your grades from tests, quizzes, weekly practice, labs, and personal/social development (behavior) will be displayed in Infinite Campus and accessible to you, your parents, teachers and other staff.

**17. Improving Your Grades:** Your grade will **increase or decrease** throughout the semester depending on how well you do on evidence activities. You can improve your in-progress grade by retaking tests and correcting lab write-ups.

**18. Infinite Campus Gradebook Academic Grading Scale:**

|  |  |
| --- | --- |
| **Advanced (AD) (90-100%)** | The student consistently **exceeds** grade-level expectations on a standard as demonstrated by a body of evidence that shows depth of understanding and flexible application of grade-level concepts. |
| **Proficient (PR) (70-89%)** | The student consistently **meets** grade-level expectations on a standard as demonstrated by a body of evidence that shows independent understanding and application of grade-level concepts. |
| **Basic (BA) (60-69%)** | The student performs **just below** grade-level expectations on a standard as demonstrated by a body of evidence that shows incomplete understanding and application of grade-level concepts. |
| **Minimal (MI) (0-59%)** | The student performs **far below** grade-level expectations on a standard as demonstrated by a body of evidence that shows limited understanding and application of grade-level concepts. |

**19. How Infinite Campus Calculates Your Grade for the Course:**  
Evidence grades for each umbrella standard will separately be converted by Infinite Campus into numerical values (percent) as follows:   
AD = 100  
PR = 85  
BA = 65  
MI = 50

The percentages for all umbrella standards will then be averaged together with equal weight. The average will be converted to a letter grade according to the following scale:  
90-100 = A  
80-89 = B  
70- 79 = C  
60-69 = D  
<60 = U

**20. Table of Topics and Labs for Semester 1:**

|  |  |  |  |
| --- | --- | --- | --- |
| Topics Introduced | Textbook | Labs | Quizzes and Tests |
| Introduction to Chemistry Safety, basic atomic structure, properties of matter  *Standard: Science and Engineering Practices* | Ch. 1 p. 2 Ch. 4 p. 86 | -Density of Water -Density of Colored Liquids Challenge  -Building a Cartesian Diver | Quiz: Basic Atomic Structure  Test: Basic Atomic Structure Quiz 1: Density Quiz 2: Density |
| Data Analysis Taking measurements, working with data and formulas, converting units, scientific notation, working with graphs *Standard: Science and Engineering Practices* | Ch. 2 p. 24 | -Creating Oobleck -Analyzing Artificial Snow  -Using density to find the thickness of a copper wire | Quiz: Interpreting and Drawing Graphs Quiz 1: Scientific Notation Quiz 2: Scientific Notation  Quiz: Rearranging Formulas Test: Data Analysis |
| Matter – Properties and Change  Physical changes in matter, classification of matter *Standard: Structure and Properties of Matter/HS-PS1-3 Investigate, compare substance structure to infer electrical force strength* | Ch. 3 p. 54 | -Effect of Solutes on Freezing Point of Water  -Making Slime | Quiz: Properties of Matter Test: Classification of Matter and Physical Changes |
| Electrons in Atoms and Atomic Models Atomic models and electron organization Role of electrons in chemical reactivity and light emissions  *Standard: Structure and Properties of Matter/HS-PS1-1 Predict properties of elements based on patterns of valence electrons* | Ch. 5 p. 116 | -Flame tests of Metal Salts | Quiz: Bohr Models, Electron Orbital Diagrams and Electron Configuration  Test: Electrons in Atoms and Atomic Models |
| The Periodic Table and Periodic Law How are elements organized in the periodic table?  What determines a chemical’s reactivity? *Standard: Structure and Properties of Matter/HS-PS1-2 Explain reaction of valence electrons, periodic trends, chemical properties* | Ch. 6 p. 150 | -Practicing Serial Dilution with Colored Dyes  -Trends Within a Group – Chemical Reactivity -Properties of Transition Metals | Quiz: Patterns of Organization in Periodic Table |
| Ionic Compounds and Ionic Reactions How are ionic compounds formed and how do they react? | Ch. 8 p. 210 | -Ionic vs. Covalent Compounds -Will It Go? -Reaction of Magnesium and Hydrochloric Acid -Formation of a Salt -Observing a Precipitate-Forming Reaction | Quiz: Formation of Ions Test: Ionic Compounds and Single Replacement Ionic Reactions  Test: Ionic Reactions |
| Reaction Rate What physical factors affect reaction rates? *Standard: Structure and Properties of Matter/HS-PS1-5 Explain effects of changing reactant temperature,concentration on reaction rate* | Ch. 7 p. 178 | -Factors Affecting the Reaction of Magnesium and Hydrochloric Acid | Quiz: Factors Affecting the Rate of Reaction |
| Chemical Equilibrium  How can reversible reactions be manipulated to change the amount of reactant or product? *Standard: Structure and Properties of Matter/HS-PS1-6 Design system giving condition changes producing increased products at equilibrium.* | Ch. 18 p. 558 | -Le Chatelier’s Principle | None |

