

Course Description

Physical science is the study of the physical world. Universal laws govern everything in the physical world. We will learn about these laws in an integrated way in order to gain a firm and comprehensive understanding of the physical world in which we live. This class is based on laboratory experiences that develop critical thinking skills and build a solid foundation for further study in science.

Course Objectives

The curriculum for this course is based upon *Conceptual Physical Science Explorations, 2nd Edition*, authored by Paul Hewitt. This text engages students in laboratory testing and deductive reasoning while presenting students with basic scientific concepts and principles. These concepts and principles are the foundation of scientific understanding.

The state and district standards for this course are available on my website. However, the **Next Generation Science Standards** (NGSS) will serve as a foundation for this course. The NGSS incorporates three dimensions of scientific knowledge:

- 1. **Domain 1: Practices** Students will investigate the natural world by using key engineering practices to design and build models and systems representing complex natural phenomena. These practices focus on solving a problem through design.
- Domain 2: Crosscutting Concepts Students will use crosscutting concepts to link different domains in science. These concepts include patterns and similarity; cause and effect; scale, proportion and quantity; systems and system models; energy and matter; structure and function; stability and change.
- 3. **Domain 3: Disciplinary Core Ideas** Students will understand concepts relevant to the big ideas in Physical Science and Earth & space science. These big ideas include: matter and its interactions, motion and stability (forces and interactions), energy, waves and their applications in technology for information transfer, Earth's place in the universe, Earth's systems, Earth and human activity, and engineering design.

Course Requirements

- 1. Class preparedness includes bringing materials and being prepared for labs, lessons
- 2. Active participation includes being present and on time to class, listening and contributing to class lesson
- 3. Class materials (bring to class daily) composition notebook, transparent tape, scientific calculator, student iPad (full charge, earbuds recommended)
- 4. Homework readings, questions, and on-line lessons. Homework may be assigned over a scheduled school break. These assignments, however, are rare and not incredibly time consuming.
- 5. Quality projects and formal lab reports. Projects and labs may be assigned in groups and may require outside of class time to complete. All projects are assigned in advance so that they may be completed before any scheduled school break. However, due dates for these projects may be after scheduled school breaks.
- 6. Regular quizzes, unit exams, and semester finals

<u>Please note</u>: Notebooks must be maintained regularly. It is YOUR RESPONSIBILITY to ensure that all required notes, assignments, labs, and activities are in your notebook. *Your notebook is required for class daily*. The grade you receive for the notebook will be based on the work it contains at the time of evaluation. Missing work will receive no credit. Late notebooks will receive a grade not to exceed 2.5.

Course Syllabus

Two versions of the course syllabus can be downloaded from my webpage. One version is a formal, school district document that includes unit objectives and timing. The more helpful version for students is one that lists the order of units covered, content from the text, and potential labs.

Grading Procedure Grades are based on a 4-point standardized scale:

- 4 Exceeding standard
- 3 Meeting standard
- 2 Approaching standard
- 1 Standard not met

The 4-point scale is unrelated to percentages and GPA. It is a system where every score earned has the same meaning, which should make it easy for the student to know what level of understanding he or she has reached.

However, grades are posted on official transcripts as letter grades and not on the 4-point scale. The table above outlines how letter grades and the 4-point scale are related.

The elements of this course will be weighted as follows in order to compile the total course grade:

40% Unit exams 10% Final exam

- 20% Notebooks (daily coursework)
- 15% Labs (labs, lab components, small guizzes)
- 10% Projects, formal lab reports
- 5% Participation

Late Work

Homework assignments are announced in class, written on the board, and posted on-line. Late or incomplete homework WILL NOT RECEIVE FULL CREDIT. If you are absent, homework is due the day you return for full credit. It is the student's responsibility to get the absent work stamped when returning from an absence and self-graded by the exam due date. Late homework may be turned in up to the exam date for that unit, otherwise no credit is given. If absent for a lab or exam, you must schedule an after school makeup with Ms. Fawcett within one week, otherwise no credit is given.

Academic & Behavior Expectations

- This class abides by the Shorewood High School Discipline Code, the Shorewood Science Department Guidelines, and the school district's Acceptable Usage Policies for iPads.
- The Shorewood High School Dress Code/Tardy/Electronics Policy included in the SW Student Handbook will be followed in this class. Upon the third tardy, the student's grade will drop to the next lower grade (A- to B+, for example). Attending the required detention will return the grade to normal.
- Restroom breaks are reserved for emergencies only. Use the restroom before or after class.
- AT ALL TIMES during the class period, iPad use is reserved for work that is directly and immediately relevant to the classroom lesson at hand. Appropriate disciplinary measures will be taken for iPad use violations.
- Any student receiving a D or F in IPSH may be required to attend an after school tutorial or Homework Club for additional help until the grade is raised.

Need Extra Help?

Always ask for help when needed. I am available before and after school most days in addition to SAS held most Tues-Fri during school hours. Make an appointment to ensure I will be here or simply stop by.

Parents and Guardíans

I encourage parents or guardians to contact me anytime regarding your student's progress (email is best). If you would like more detailed information about this course, please see the IPSH Parents Page that can be accessed from my website. I look forward to meeting you at the Shorewood High School Open House on Thurs., Oct.6, 2016 at 7pm.

I look forward to a fun year learning science together!

Jamy . Tawatt

