

# Materials Science Syllabus

## School Year: 2022-2023

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**Instructor:** Mrs. Julie Kim

**Course:** Materials Science

**Room #:** 259

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**Phone:** (440)356-3500 x4146

**Office/Tutorial Hours:** T/W 2:29-3:15 pm or by appointment

### Course Description:

This course involves the study of the chemistry of solid materials. More specifically, the purpose of the course is to give fundamental knowledge about types of materials, their usage, properties and characteristics. Students will study the composition, structure, and properties of materials used by society. Topics investigated in the course include, but are not limited to; the periodic table, atomic structure and bonding, crystal structures, chemical and physical properties, corrosion (oxidation/reduction reactions), metals, ceramics and glass, polymers, and composite materials. The primary means of learning will be laboratory investigations through creative and sometimes artistic hands-on activities.

### Required Materials:

You must have the following **EVERYDAY** you come to class:

- Macbook (we will use this daily)
- 3-ring binder (1-1/2") or very sturdy folder for all daily papers
- Calculator
- Pen/Pencil and Highlighters
- Loose leaf paper (for notes and assignments)
- **Headphones/earbuds**

### Classroom Rules:

1. Be on time and with all necessary materials.
2. Be prepared and actively participating
3. Keep your bodies and your objects to yourself.
4. Treat your surroundings with respect.
5. Turn in YOUR OWN work, with your name on it, on time.
6. Tablets, cell phones and electronic devices are only to be used when prior permission has been given  
(Please see our school policy for full details.)

**\*\*All school rules will be enforced, see your handbook if you are confused on any school rule.**

**Consequences:** Violating the above rules, as well as any school rule that causes a disruption to classroom learning will result in the following:

- 1<sup>st</sup> offense: Verbal Warning**
- 2<sup>nd</sup> offense: Detention and contact parents**
- 3<sup>rd</sup> offense: Referral to AP and parent contact**

This series of consequences can be altered at any time due to extreme offenses that cannot be ignored. Examples of extreme offenses include: excessive language with cursing or crude comments, violence, ignoring specific instructions in the lab, etc.

**Google Classroom:** The google classroom page will be updated frequently with the day's assignments, notes and lectures. It will also have important classroom news posted.

## Behavior in Lab Settings:

**Before their first lab, students will be expected to pass a lab safety quiz with an 80% or better.** NO STUDENT IS PERMITTED TO WORK IN THE LAB WITHOUT A PASSING LAB SAFETY SCORE. Students must also have a signed safety contract on file to work in the lab. This is done to ensure that students have an understanding of safe procedures in the lab environment. Any student who has not satisfied these safety requirements will be given an alternate assignment for labs.

Horseplay or malicious activity of any kind is not permitted in the lab. This can lead to the damage or destruction of expensive lab equipment. I understand that accidents can happen and I expect some accidents to happen. While no child will be held liable for unintended accidents, **misbehavior that results in damage to lab equipment will result in monetary penalties, a referral to administration, and possible removal from all further lab investigations.**

If you miss a lab you will be given **one** week to make them up, if you do not come in that window worth of time a zero will be given for that lab.

## Cellphones/Internet Enabled Devices

Before quizzes and tests, ALL phones will be collected. These phones will be stored in a basket within arm's reach of the teacher. Phones will not be returned until all students are done taking the exam. Students caught in possession of ANY internet-enabled devices during an assessment will receive all of the consequences for cheating, in addition to other penalties, and will NOT be permitted to finish or redo the original assessment.

## Evaluation Procedures:

- Grading will be point based.
- **Participation in labs** is required.
- All labs will be recorded in a journal and will remain in the classroom at all times for evaluation.

## **Quizzes and Tests:**

- Each quiz will be aligned with the current topic of study and/or assignments.
- Final tests for each unit will be worth 100 points and will be cumulative (include knowledge and skills from previous units).

**Labs:** Materials Science is a lab-based course, with students participating in hands-on modeling or lab activities.

- If you miss a lab you will be given **one** week to make them up, if you do not come in that window worth of time a zero will be given for that lab. .
- Lab activities not requiring a write-up will be collected at the end of class.
- Expectations for each lab will be clearly stated on the lab handout.

**Assignments:** You will have assignments. The assignments should take you between 5-25 minutes. **If it is taking you longer then you need to come to after school office hours.**

- Assignments will be checked at the beginning of class.
- Assignments are worth 1 point and are SOLELY a participation grade: either the student attempted the assignment, thereby earning a 1, or did not attempt the assignment, thereby earning a 0.
- You will not get a grade on late Assignments.
- All assignments can be found on Google Classroom.

With minor exceptions, all assignments, notes, and class activities will be kept in the chemistry binder/folder. The chemistry binder/folder itself will not be graded, however keeping an organized binder/folder will benefit you

## **MISSING/LATE WORK:**

**Labs:** Will Not be accepted late due to the nature of this course. Most labs will be setup for a time period and then be put away. At which point students will not have access to these materials. Students will have the opportunity to make up the labs during office hours or by appointment.

**Homework and Classwork:** NOT accepted

- All missing assignments are IMMEDIATELY marked as a missing, including assignments missed due to an excused absence.
- If an assignment is late due to an absence, the assignment is due the day the student returns to school; there will be NO EXTENSION due to missed days.
- If an assignment is missed due to an absence, the student should make arrangements with the teacher to complete this assignment or an alternative assignment.
- Once a late or missing assignment has been turned in, please allow up to five working days for the assignment to be reflected in the gradebook.

## **Plagiarism and Cheating**

In this increasingly technological society, it is becoming easier and easier for students to plagiarize assignments or “cheat” on quizzes and tests. We will be using a variety of in class technologies that lend to the possibility of cheating. CHEATING WILL NOT BE TOLERATED! Cheating is considered a violation of the Student Code.

Dishonesty/Cheating: This means copying/plagiarizing another’s work and submitting it as one’s own. Examples include:

- Using a cell phone to transmit test items, test answers or other secured information to others or obtaining material or work from a teacher or another student in a dishonest or unauthorized way.
- Copying assignment/homework responses of another student.
- Requesting, offering, giving or receiving information during a quiz.
- Presenting the labor, language, structure or concepts of others as one’s own original work.
- Disseminating, distributing, copying, printing or creating derivatives of the intellectual property of others (e.g., homework, projects) without authorization.

**Consequences of cheating will be dealt with according to the student handbook.**

## **Course Materials**

Typically, all materials required for the course are made available in the classroom. However, these materials are the property of the school and/or teacher. **Wanton and deliberate destruction of classroom supplies will result in referrals and charges on the student’s account.** Additionally, students are responsible for supplies provided at their station. It is their responsibility to report lost/damaged items immediately to avoid charges. A statement of applicable charges is available on request.

**Syllabus Revision:** The teacher reserves the right to revise the syllabus at any point when deemed necessary and appropriate for the needs of the students.

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Acknowledgement and Compliance  
2022 - 2023

\_\_\_\_\_ **Class Period:** \_\_\_\_\_  
**Student (Print)**

**Student Acknowledgement:** Please initial.

\_\_\_\_\_ I understand that safety violations in the lab will not be tolerated for any reason and will bar me from future lab activities. Any labs that I am barred from will be recorded as zeroes.

\_\_\_\_\_ I understand that I cannot participate in lab until my safety contract is turned in. If the class was to complete a lab before my safety contract was turned in, I may receive a zero for the lab.

\_\_\_\_\_ I have read and fully understand the late work policy.

\_\_\_\_\_ I have read and fully understand the cell phone policy.

\_\_\_\_\_ I have read and fully understand the cheating policy.

\_\_\_\_\_  
**Student Signature**

\_\_\_\_\_  
**Parent / Guardian Signature**

**Parent / Guardian Contact Information:**

**Name (Print):** \_\_\_\_\_

**Phone number:** \_\_\_\_\_

**Email:** \_\_\_\_\_