

Engineering Essentials 2024-2025

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Room 72

Course Description:

The focus of this class is learning! Your grades will be based on your understanding of the engineering standards associated with this class.

Engineering Essentials is designed to give students a taste of all that the field of engineering has to offer. Students will solve real-world problems using engineering tools and the engineering design process to develop solutions in a variety of industry sectors. Topics covered in this course include: disaster relief and recovery, work health and well-being, modern medical devices and procedures, and sustainable cities and communities. This course is very heavy in computer work as well as hands-on building.

Cell Phone & Headphone Policy

Our classroom follows the Big Sky High School cell phone policy. Cell phones must be put away at all times unless specifically indicated by me. If you have your phone out without approval, I will ask you to store it in the phone caddy for the remainder of class. If you do not comply with this policy, I will ask admin to take your phone to the office for the remainder of the day and an ODR will be written. A third violation will result in confiscation with parent pickup required. **Headphones must be removed upon entering the classroom.**

What You're Going to Need:

- **Notebook or scratch paper**
- **Binder dedicated to this class**
- **Writing Utensils** (there will be times when you are required to use pencil)
- **Optional** (these will be provided for you but it may be handy to have your own)
 - **Colored pencils**
 - **Ruler**
 - **Large eraser**
 - **Wireless mouse**

Engineering Notebooks

You will be provided an engineering notebook that will be kept in the classroom. This will be a large part of your final grade

Grading Policy

In this class we will be using Standards Based Grading. All grades will be based on student's understanding of given learning targets on a 1-4 scale.

This is a **weighted class**. 20% of your grade will be based on **formative assessments** (everyday work, labs, quizzes). 80% of your grade will be based on **summative assessments** (tests, larger projects, cumulative notebook checks).

Grading scale

- A = 4 (85%+)** Advanced: Full comprehension with enriching details
B = 3 (70%) Proficient: Mastery of target, without advanced details
C = 2 (50%) Basic: General understanding of main ideas
D = 1 (35%) Novice: Shows little understanding of target

- **Late work:** all work is expected to be turned in on time. If you miss turning in an assignment, it will be marked as a zero in the gradebook until it is turned in. All late work must be turned in by the last Thursday of each month. No late work will be accepted after this and the grade will remain a zero. You will not be docked points for late work.
- **Absent work:** when you are absent it is your responsibility to find out what you missed and get caught up. The best way to do this is to check google classroom where the agendas and materials are posted. Email me any follow up questions.
- **Revisions/Lab makeups:** All formative assessments can be revised before the late work deadline of each month.
 - If you need additional help or reteaching of material in order to revise or makeup work, please schedule a time to conference with me during zero period or advisory.
 - Summative assessment learning targets can be reassessed for up to a 3. In order to reassess, you must have all formative assessments turned in and corrected. You need to communicate with me about reassessing and schedule a time to reassess. You will need to bring all your formative assessments, notes, etc. with you. You have one month from the date the summative is given to retake.

Classroom Rules

1. **Be Responsible:**
 - a. Safety: first & always
 - b. Be on time, have your materials, be in your seat doing warm-up work when the bell rings.
 - c. Cell phones must be silenced & put away unless indicated otherwise.
2. **Be Respectful:**
 - a. Use appropriate language & respect others always (physically, verbally, & on all levels).
3. **Be Resilient:**
 - a. Maintain a positive attitude!

Consequences

1. Verbal warning
2. After class conference and potential email/call to parents
3. Office discipline referral and call home to parents

Academic Honesty: All work in this class is expected to be your own. If you cheat or plagiarize work: you will be given a zero until the work is completed honestly; I will contact your parents; You will receive a lunch detention per the student handbook.

Google Classroom

I will post all classroom assignments and materials on classroom for absent students. I will also use google classroom to communicate with you, to post links to websites, and have a place to turn in digital assignments. I will give you the code during the first week of school.

- **Citizenship:** Throughout the year you will be assessed on a citizenship rubric developed by the industrial technology department. The goal of this is to build skills and promote positive behaviors like being on time and prepared for class. This assessment will be recorded in the gradebook as a formative assessment.
- **Communication:** The best way to communicate with me is via email. For a immediate response, please do not comment on assignments in google classroom as I may not see those in a timely manner.
- **Seating Arrangements:** Your seat in my class will be randomly chosen and changed throughout the year. It is very important that you always sit in your assigned seat and work with your assigned lab group. I may change your seat at any point if issues arise. I will only consider changing your seat based on legitimate concerns like seeing the board.