



## **8<sup>th</sup> Grade: Applied Engineering**

## **7<sup>th</sup> Grade Technology Education**

Teacher Name: Gary Baker

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**Conference Period:** 2<sup>nd</sup> period 9:10 am – 10:00 am

Tutoring Opportunities: Before school 7:45am-8:15am.

### **Class Materials:**

- A 2 pocket folder with brads
- 12 inch ruler
- One drafting triangle with 90 degree and 45 degree angles
- During virtual school a laptop and reliable internet system

Access to Canvas and Office365 tools is available to students through our [Single Sign-on Portal \(SSO\)](#). Students receive their SSO login during enrollment.

### **Course Description:**

#### **8<sup>th</sup> Grade Applied Engineering Principles**

This course is an introductory course in the engineering program. The course exposes students to technical drawing including computer aided design (CAD) programs, design concepts and processes, and the building of a product. The course is project-based incorporating basic building skills as a means to investigate design, structure, electricity, aerodynamics, etc.

#### **7<sup>th</sup> Grade Technology Education**

This semester course is designed to be an introduction to technology education including engineering, construction, and architecture. Students will work individually and with partners on various projects with computer applications such as Power Point, Publisher, Word, and Excel. Various software packages, such as Sketch Up and West Point Bridge Design, will be used to design projects that will be produced in the industrial shop lab.

### **Course Goals:**

Students who complete this course successfully will be able to:

**Be innovative problem solvers on how systems interact. Identify areas where quality, reliability, and safety are used. Understand and follow all steps need to complete a project, and apply**

critical thinking strategies to improve their projects. Use written, verbal, and visual communication techniques. The student will use math concepts, and apply science principles. Teamwork to solve problems, and understand that all work will be completed according to established criteria.

### **Student Evaluation:**

**The grading system for this course is as follows:**

- Grade averaged 60% Major 40% Minor (Advanced courses 70% Major 30% Minor)
- Major grades – tests (including District Common Assessments, six weeks assessments, projects, final essays, research papers, presentations); minimum three per six weeks
- Minor grades – quizzes, daily assignments, journals; minimum ten per six weeks
- Semester exams will count 1/7 of the semester grade
- A letter system (S, N, U) is used to report a student's conduct based on proper/responsive conduct and citizenship
- Per Board Policy EIA (LOCAL), "The District shall permit a student who meets the criteria detailed in the grading guidelines a reasonable opportunity to redo an assignment or retake a test for which the student received a **failing** grade. This policy applies only to initial identified major grades and does not apply to daily assignments, quizzes, six-week test, and semester final examinations. Upon reteach and retest, the new test, project, etc. recorded will be a high score of 70%.
- Official grades will be in Skyward only and can be accessed by student and parent through Family Access.

**Assignments, exams, expectations outside of the classroom:**  
Since this is a project-based course, students must actively participate in order to pass. Team project include individual evaluations by both peers and the teacher, so students who fail to do their parts will see their grades suffer. Students will have little work to bring home. There will be 2 quizzes and 1 major exam per project and the project itself will be a major grade. For students taking online courses they will be assigned to teams when the project build begins, and will have to show evidence of collaboration and participation. The method of showing that evidence will be communicated when projects are assigned.

### **Attendance/Tardy Policy/Make-Up Work:**

Tardy Policy is as follows: after the second tardy I will speak to the student one on one in my office, after the third tardy I will call the parent, after the fourth the will be given a referral to the office.

Make up work: students with excused absences have 1 day plus the number of days they were absent to make up late work. It will be the student's responsibility to ask for work they missed and do grade checks to be sure nothing has been forgotten. Late work that is due to unexcused absences will be penalized 10% per day until work is turned in. That being said, I do consider extenuating circumstances. So please feel free to discuss the circumstance with me.

## **Classroom Expectations**

- 1 Students are expected to follow directions when given. (If you do not understand, the directions ask)
2. Keep your hands, feet, and other objects to yourself.
3. Come to class prepared to be on task.
4. Follow all school policy and procedures as stated in the student handbook.
5. I will respect others.

## **Preliminary Schedule of Topics, Readings, and Assignments**

8<sup>th</sup> Grade: Bridge Design, CAD, Aerodynamics, Automotive, Electronic, Robotics, OSHA. All links and handouts will be provided to the students (working in engineering teams) at the time they work on the research to produce a Power Point for each of the topics, and then present their findings to the class. Then the students will build their projects and incorporate what they have researched.

7<sup>th</sup> Grade: Rocket science, Building and Construction, Manufacturing. The students will research each topic using an in class computers with a team member. Links will be provided and all handout material will be provided. The student's will write a 2-page research project on each of the topics, and the present it to the class. Then the student's will build their projects.

### **Academic Integrity:**

**Academic integrity values the work of individuals regardless if it is another student's work, a researcher, or author. The pursuit of learning requires each student to be responsible for his or her academic work. Academic dishonesty is not tolerated in our schools. Academic dishonesty, includes cheating, copying the work of another student, plagiarism, and unauthorized communication between students during an examination. The determination that a student has engaged in academic dishonesty shall be based on the judgment of the classroom teacher or other supervising professional employee and considers written materials, observation, or information from students. Students found to have engaged in academic dishonesty shall be subject to disciplinary and/or academic penalties. The teacher and campus administrator shall jointly determine such action.**