Engineering Principles Syllabus

Program Description: The academic program of study is designed to prepare students for college level work.

Course Description: This course is a hands-on introduction to learning and applying the principles required to solve everyday world problems. Basic math and science concepts from prerequisite courses will be applied to real life situations. Projects and course subject matter will address mechanical analysis, thermodynamics, electricity, and magnetism. Once mastered, students will choose one of these topics, do an independent study of a real life problem, and engineer a solution to correct it.

Class Rules

- Come to class **on-time**, **prepared** to learn and **stay** the entire time.
- **Respect** all people, property, and ideas
- Do your very **best**!
- Follow any **school rules** not addressed here but found in the student handbook including but not limited to:

Consequences

Warning	30 seconds after class	Notify parents	Detention	Request Conference

- If an action is severe enough, higher consequences can be taken. The consequences will last an entire quarter and you will regain a clean slate on first day of the following quarter.

Grading Procedures

GRADING:

Your quarter average is determined by the point system:

$$\frac{\text{total points earned}}{\text{total points possible}} \times 100\% = \text{Quarter Average}$$

- There will be a cumulative final exam at the end of the year.

Homework:
Homework will be checked everyday that it is assigned. It will be graded and counted into your total points for the quarter. The number of points that it is worth depends on the assignment. Be sure that you do your homework; it can hurt your grade as easily as it can help your grade!

Quizzes / Tests: Quizzes may be announced or unannounced. They will be given on any material learned previous to the day they are given. Students who have been absent have the responsibility to get any information they missed and come in prepared each day.

Projects: All projects will be graded based on a rubric. Some rubrics will be based on a floating scale where students will compete against each other for grades. For example, the bridge that holds the most weight will receive 100pts while a bridge that holds less weigh will receive a percentage of 100pts base on the weight held.

Unprepared for Class

- Students coming to class unprepared see a reduction in their grade. Coming to class unprepared include but are not limited to not having your pencil or pen, notebook, handouts, or calculator.

Absenteeism and Grades

- Due to the nature of engineering student attendance in class is required. Students who miss classes, miss integral parts of the course that cannot be replicated on paper or in a small group setting. As the number of days students are absent increases, their overall grade in the course will decrease from missed quiz and test questions, and from poor project performance. Students need to make every effort to be in class every day to prevent their grades from decreasing.
- If a student misses over 15 days of class during the year, the student may see a reduction in their quarter class grade by 1 point for each additional day they miss.
- Any assignment you miss because of absence is your responsibility to make up. If after a week the assignment is still outstanding it becomes a zero. This may require you to spend some time after school making up labs and projects.

End of Year Grades will be determined by averaging together your 4 quarter grades. There is no final in this class.

Academic Honesty

Your integrity should be very important to you. Copying homework or assignments is cheating, and when caught you will be given a 0%. Working together is different than copying. Any quiz, test or project you are caught cheating on will result in automatic 0% with no opportunity for a retake. I will give different versions of test/quizzes and move students around during testing to ensure you are doing your own work. Ultimately however, it is you who must determine how you want to succeed, on your own merits or dishonestly through the work of someone else.

SAFETY CONTRACT

1. I understand that eye protection needs to be worn correctly without exception when using or near someone using tools.

2. I will follow all safety procedures at all times without exception.

3. I understand that loose clothing, loose jewelry, including rings of any kind, long hair (not in a ponytail), and neckties or hoodie drawstrings can be dangerous in the shop and should not be worn.

4. I understand that Safety Signs are to be understood before using the equipment and the safety procedures are to be followed during its use.

5. I understand that protective clothing is an important part of shop safety and that shoes that cover the toes should always be worn while in the shop.

6. I understand that horseplay in never allowed in the shop and can cause serious injury to myself and to other students around me.

7. I will report all accidents, no matter how minor.

8. I understand that cleaning the shop at the end of each class period is an important part of shop safety and I will participate at the end of every class or whenever it is needed.

9. I understand that running, throwing, food and beverages are never allowed in the shop at any time.

10. I understand that all tools and equipment, wood and supplies are to be stored correctly and safely.

11. Parent/Guardian signature indicates the student can be trusted to use hand and power tools safely and grants permission for student to learn about and use hand and power tools with instructor supervision.
12. I understand that I will be responsible to purchase any equipment I break.

Failure to comply with this safety contract can result in a some or all of the following zero for the activity or the class, a detention, suspension, removal from the class, any other punishment outlines by other school policies

Student's Last Name_____

Information Sheet

Name(Student) (First, Last, Preferred) _____

Contact Name (First, Last, Relationship) _____

Contact Phone Number_____

Contact e-mail address(parent)_____

Contact e-mail address(student)_____

Questions

Do you have Internet access at home?

___ Yes ____No

Are you color blind?

___ Yes ____No

Do you have an after school job?

____Yes ____No

How many hours per week?_____

Record of Home Contact
(Do not write in this box)

Date	Person	Medium

Procedures and Rules Acknowledgment

I, _____ (student's name) have read and agree to follow all of the, policies, procedures, classroom rules, and lab safety rules set forth in the class syllabus found on my courses Procedures page on www.croomphysics.com. If I have a question about any portion of the syllabus I will ask my teacher for clarification. I realize that I must obey these rules to insure my own safety, and that of my fellow students and instructor. I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe classroom and lab environment. I will also closely follow the oral and written instructions provided by the instructor. I am aware that any violation of this safety contract that results in unsafe conductions in the laboratory, or misbehavior on my part, may result in being removed from the laboratory, receiving a detention, receiving a failing grade, and/or dismissal from the course.

_____ _____

Student Signature Date

Dear Parent or Guardian,
We feel that you should be informed regarding the school's effort to create and maintain a safe science classroom and laboratory environment. With the cooperation of the instructor, parents, possible hazards can be corrected and prevented. You should be aware of all of the, policies, procedures, classroom rules, and lab safety rules your son/daughter will receive before engaging in class and laboratory work. Please read the list of these policies, procedures, classroom rules, and lab safety rules which are set forth in the class syllabus found on the Procedures page on www.croomphysics.com. If you have any questions please feel free to contact your student's teacher. No student will be permitted to perform laboratory activities unless this contract is signed by both the student and the parent/guardian and is on file with the teacher. Your signature on this contract indicates that you have read this syllabus and are aware of the measures taken to insure the safety of your son/daughter in the science class and laboratory as well as the grading procedure and the student's responsibilities for the course. It is also expected that you will instruct your son/daughter to uphold his/her agreement to the follow these rules and procedures in the class and laboratory.

_____ _____ _____

Parent/Guardian Name (print) Signature Date