Principles of Engineering Syllabus 2019-2020

Instructor Information:

Teacher: John Bruysschaard
Certifications: Math 6-12
Trade and Industry – Drafting
Mid-Management – K-12
Project Lead the Way – Introduction to Engineering Design and Principles of Engineering
Edhesive – Amazon Future Engineer
Room: Dickinson High School, CT-110
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Course Description:

Principles of Engineering (POE) is a high school-level survey course of engineering. The course exposes students to several concepts that they will encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high tech careers. POE gives students the opportunity to develop skills and understanding of course concepts through Activity, Project and Problem-Based (APPB) learning, used in combination with a teaming approach. APPB learning challenges students to continually hone their interpersonal skills, creative abilities and problem-solving skills based upon engineering concepts. This class also allows students to develop organizational habits that enable them to direct their own learning. For success in POE, students should be concurrently enrolled in a college preparatory math and science class. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document and communicate their solutions to peers and members of the professional community. POE applies and concurrently develops secondary knowledge and skills in Science, Technology, Engineering and Mathematics. **The notes and assignments are placed in Google Classroom daily.**

Course Objectives:

By the end of this course, the successful student will be able to: Apply secondary level knowledge and skills in Science, Technology, Engineering and Math (STEM) concepts in the course of studies including: *Mechanisms*Energy Sources*Energy Applications*Machine Control*Fluid Power*Material Properties*Material Testing*Statistics

Academic Honesty:

All students will submit their own work. Worked copied from another student will receive a grade of zero. Worked shared electronically both parties involved will receive a grade of zero.

Tutorials:

Monday, Tuesday, Thursday and Friday – 6:30 AM – 7:10 AM

Wednesday & Friday – by appointment, 2:30 PM – 3:00 PM

Class Policies and Expectations:

1. Attendance – there is a direct correlation between good grades and good attendance. This course covers a large amount of material. Come to school. Missed assignments are the responsibility of the student. Make up work is only discussed during tutorial time.
2. Be prepared – This course covers a large amount of material be ready to work when the tardy bell rings. Read the front white board as you are coming into class. Have your Engineering notebook at your desk. Gather any supplies needed for the day's activities. Sharpen pencils.
3. Use appropriate levels of behavior depending on the activity (CHOMPS)
4. Food and drink are prohibited for students.
5. All electronic devices except the desktop computers are prohibited, unless instructed by Mr. Bruysschaard. Several classes use the computers that are provided and we all need to be respectful of the equipment.
6. Cells phones are not allowed out during class, if the phone becomes a problem then that student will place their phone in the holder at the front of the room.
7. Assessments – there are two categories:
   Formative: (50%) daily work, homework, random engineering notebook checks, some class activities.
   Summative: (50%) quizzes, test, nine week exams and nine week engineering notebook checks. POE EOC.
8. Student responsibility – Each student is responsible for his/her actions. Students and parents can monitor progress using Skyward.

Supplies:

Composition Notebook with Graph Paper (required)

Pens/Pencils

Principles of Engineering Syllabus – 2019-2020 – Mr. Bruysschaard

Print student name_____

Student Signature_____

Parent Signature_____

Period_____