NNHS Pre-Engineering Drafting Syllabus

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Mission
To educate students to be self-directed learners, collaborative workers, complex thinkers, quality producers, and community contributors

Course Description
This course is intended for students who have a high interest and aptitude for engineering and wish to further study in the various fields of engineering. Students will study areas not covered thus far in the introductory courses. Topics covered are: multi-view projections that would coincide with a hands-on project in the areas of mechanical engineering, civil engineering and aerospace engineering. Most drawings will be done on autocad to enhance their computer skills.

Course Learning Standards
Semester 1
● Develop an understanding of the attributes of engineering design. (50 %)
● Apply the design process. (50%)

Semester 2
● Understand the role of troubleshooting, research and development, invention and innovation and experimentation in problem solving.. (20%)
● Gain an awareness and understanding of the influence of technology on history. (20%)
● Utilize computer aided drafting to assist in the design and create a prototype. (40%)
● Develop an understanding of the design world; energy, power, transportation, medical and manufacturing. (20%)

Grading:
Your course grade will reflect what you have learned, not what you have completed!

Overall Semester grade:

85% Coursework
15% Final Exam

The final semester grade will be rounded to the nearest percentage point.

Course Grade

Semester 1

Standard 1 - Develop an understanding of the attributes of engineering design.
● Marble maze
● Inventor drawings
- Bridge building
- Research project

Standard 2 - Apply the design process
- Marble maze
- Bridge building
- 5 mini projects

Semester 2

Standard 1 - Understand the role of troubleshooting, research and development, invention and innovation and experimentation in problem solving...
- Inventor drawings
- Crane building
- Engineering scenarios

Standard 2 - Gain an awareness and understanding of the influence of technology on history.
- Inventor drawings
- Crane building
- Engineering scenarios

Standard 3 - Utilize computer aided drafting to assist in the design and create a prototype.
- Inventor drawings
- Crane building
- Engineering scenarios

Standard 4 - Develop an understanding of the design world; energy, power, transportation, medical and manufacturing.
- Inventor drawings
- Crane building
- Engineering scenarios

Each standard is assigned a particular percentage.

Points are given out with weighted standards.

Grading Disbursement:
A= 90-100 B= 80-89 C= 70-79 D=60-69 F= <59

Reassessment Policy

Summative Assignments (tests, quizzes, projects): These assignments must be completed before the end of the following unit.

Formative Assignments (labs, class work, activities, homework): All late work must be completed by the end of the current set for a maximum grade. Anything turned in after the end of the set will receive a half the points.

Retake Policy (retakes are only on summative work, excluding final exams):

1. Students are only allowed retakes on unit tests on which they receive a 79% or below.
2. The maximum grade the student can get on the retake is an 80%.
3. The higher of the two scores will be entered in Infinite Campus
4. The retake times and locations are left up to the individual teacher.
5. Students are required to do an alternative assignment or be given the opportunity to fix an assignment already provided.

**Communication**

- Teachers make every effort to respond to emails and phone calls within 48 hours during the work week.
- The best way to communicate with teachers is through email; however, if you haven't received a response in 48 hours, please resend the email or call their voicemail. Your email may have gone into the spam folder.

**Help**

- Make an appointment with your teacher.
- Attend S.O.S (supervised open study) in the Literacy Center M, W & Th from 3:15 to 4:15.
- Drop in for peer tutor during lunch periods or before school through the Literacy Center.

**Parents or Guardians**

We need your help!

- Parents should actively check Infinite Campus for their students grade.
  - The grades on Infinite Campus will be accurate only at Mid-Quarter and Quarter. Prior to those dates, the grade reflected is fluid.
  - Infinite Campus is a communication tool until final grade is posted.
- Please ask your student about their school work
- Check with your individual teacher for classroom procedures, schedules, and daily class news.