

FREE STATE HIGH SCHOOL

Engineering Class 1 Fall 2022 Semester 1

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Rm. 612

Introduction:

Engineering is an introductory course to give the student a look at the profession of Engineering. The course begins with a review of basic math, Engineering Careers, Engineering Disasters, Historical Engineering Designs and the design process. The last 8 weeks of the semester involves completing four projects.

Overview:

A course curriculum guide is attached to this syllabus. The guide will be followed as closely as possible. Variations will be made depending on the advancement of each individual class or section of the course.

GRADING PARAMETERS:

GRADE LABEL	PERCENT CUTOFF	PERCENT VALUE
A+	96.5	100
A	93.5	96.49
A-	89.5	93.49
B+	86.5	89.49
B	83.5	86.49
B-	79.5	83.49
C+	76.5	79.49
C	73.5	76.49
C-	69.5	73.49
D+	66.5	69.49
D	63.5	66.49
D-	59.5	63.49

CLASSROOM ENVIRONMENT:

1. Cell phones put away.
2. Computers are to be used for classwork during class.
3. Students should be quiet and considerate of others during class.
4. Students should remain seated unless called upon.
5. Students will be assigned seats for contact tracing purposes.
6. Communicate with the instructor your progress and any questions regarding the subject.
7. In general, assignments will be completed within one week of the assigned date. Major projects will be allotted additional time with completion dates announced at the beginning of the projects. **The grade for late assignments will be reduced by 50%.**

COVID Safety Protocols at this time are: We will continue our protocols to keep our school community safe such as daily cleaning of all spaces, encouraging frequent hand washing, and providing sanitizing stations throughout the building. We will keep you apprised of changes as they occur.

CLASSROOM PROCEDURE:

1. Attendance and having a charged MacBook are critical to doing well in class.
2. Be attentive while the content of course material is presented.
3. Work quietly and take notes.
4. Be courteous to others and raise your hand to speak. In general one person talking at a time.
5. Inappropriate conduct will result in removal from class. The student's counselor or principal will be notified.

CLASS SCHEDULE:

Engineering I has four sections. I will assign a section number for each class. The section number should appear on the work submitted along with the student's name. Each section of Engineering meets four times a week according to the schedule.

CONCLUSION:

Engineering I informs the student about the profession of Engineering. Engineers interface with technician, surveyor and other engineer. The information in this course gives the student a look at all the possibilities for a career in the Sciences. This course should give the student an idea if Engineering is a profession they may want to pursue.

Intro to Engineering Curriculum Guide

Week 1	Basic Math & Measurement
Week 2-3	Engineering Career Opportunities Presentation
Week 4-5	Engineering Historical Design Presentation
Week 6-7	Engineering Disasters Presentation
Week 8	Sketching, Multiview Drawings & Engineering Design Process
Weeks 9-10	Solid Modeling, Printing, Additive Printing & Coordinate Systems
Week 11-12	Block Project
Weeks 12-15	Mouse Trap Car Project
Weeks 15-17	Balsa Wood Bridge Project
Weeks 18	Popsicle Stick Tower Build