



2017-2018 SYLLABUS

Engineering
Grade 7

INSTRUCTIONAL GOALS

We will develop and use models to generate data to test ideas. We will evaluate different design solutions based on design criteria. We will construct explanations and design solutions using models. As well as communicate scientific and/or technical information in writing and through oral presentations. We will look at different communication systems and see their drawbacks and benefits. We will also look at transportation systems and structural systems and their drawbacks and benefits on society.

At the end of this course, you will

- Know how to develop, revise and use models/prototypes in various ways
- Know how to communicate in writing and oral presentations using scientific and technical data
- Know what a communication, transportation, and structural system are
- Know the drawbacks and benefits of each system on society

NEEDS AND RESOURCES

Required Background

To successfully complete this course, you

- Should understand the Scientific Method
- Should understand the Engineering Design Process
- Should know how to use basic tools (hammer, screw driver, ruler, etc.)
- Should know how to setup a lab notebook
- Should know how to use Google Classroom

Required Materials

To successfully complete this course, you will need

- A notebook



- A willingness to step outside your comfort zone

POLICIES AND PROCEDURES

Class Structure:

The Engineering class is a lab based class. There will be lectures and videos to reinforce the skills and procedures needed to complete a project. The class as a whole will be very hands on, where the students will be coming up with a plan of attack for each project, and then executing that plan. The students will learn by doing and working with their hands.

General Rules:

Students need to be responsible at all times. No running or horseplay in the lab. Be respectful of everything and everyone. No gum chewing and no cell phone use.

Grading Policies:

Engineering is a pass/fail exploratory class. Grades will be given on projects. Grades will be given on questions that are posted in Google Classroom and grades will be given on debriefs after each project.

CONTACT INFORMATION

- Christopher Simbliaris, Engineering
- simbliarisc@mersd.org
- Google Classroom
- [Mr. Simbliaris Teacher Website](#)