

Principles of Engineering
Teacher: Mrs. Terri Fleming
Email: terri.fleming@neomin.org

Project Lead the Way philosophy

John Dewey theorized that learning should not only prepare one for life, but should also be an integral part of life itself. Stimulating real problems and real problem solving is one function of project-based learning. Projects assist students in succeeding in life because they allow learners to apply multiple intelligences in completing a project that has meaning and that they can be proud of.

The curricula created by Project Lead the Way, Inc. embraces the educational tenets of project-based learning. The students develop course specific projects as they solve the problems posed by the essential and key questions stated in each Unit and Lesson overview.

Curricula:

Unit 1: Definition and types of Engineering

Unit 2: Communication and documentation

Unit 3: Design Process

Unit 4: Engineering Systems

Unit 5: Statics and strength of materials

Unit 6: Materials and materials testing in Engineering

Unit 7: Engineering for reliability

Unit 8: Kinematics

Projects: All students will complete key projects thought the year. The Long Term Assignment is a research paper on a forensic technique that will be examined in a term paper portion, a visual portion, and a presentation portion. The LTA will be due before the end of every semester. Their will be the 12-15 labs that are done every year and the major crime scene for the end of the year final. Lastly the binder is an ongoing project for this class and will be graded at end of the 9 weeks.

Supplies needed: Composition Book 2 pocket folder

Grading Scale:

| | |
|----------|---|
| 93-100 | A |
| 83-92 | B |
| 73-82 | C |
| 63-72 | D |
| Below 62 | F |

Grading Procedures:

1. All assignments are due at the beginning of the class period. If you have a planned absence or a field trip, turn your work in early.
2. When absent, it is **your responsibility** to find out what you missed. You will be given as many days as you were absent to complete missed assignments. Students will loose participation points for the day.
3. If a laboratory is missed due to absence, it will be made up during extra help or an alternative assignment will be give.
4. Homework will be checked for completion and all work must be shown. Homework preparation is critical for success in the class. Homework must be placed in the correct tray with Name, Date, and Period to get maximum points.

5. **All** materials must be brought to class every day. Failure to do so will result in point deductions and denial of hall privileges.
6. If you must leave my class to go to another teacher you must have a signed pass from that teacher. I will only sign passes to the restroom, drinking fountain, and etc. These privileges will be limited by the tickets given.
7. Disruption of class, failure to follow rules, of lack of participation ,or missing class will result in the loss of these points for that particular day.
8. Notebooks will be collected one time in a nine week period and evaluated. Failure to keep an organized folder will result in point deductions.
9. The point breakdown for the course is as follows approximately but not exactly:

| | |
|-----------------------------------|------------------------------|
| Participation-25% | Tests and Quizzes-25% |
| Notebooks and Homework-25% | Projects and Labs-25% |

Classroom Rules:

1. Follow direction and pay attention in class.
2. Actively participate and take notes.
3. Be prepared. Bring **ALL** required materials to class.
4. Be **respectful** to classmates and teachers.
5. Do not touch lab or demonstration materials until told to do so.
6. Be in your seat when the bell rings.
7. If you have something to say, **raise your hand**.
8. Do not throw any object at any time.
9. Use appropriate language.
10. Late work can be submitted for partial credit. Five points will be deducted out of 100 for every day late.

Consequences:

- Step 1 – Warning
- Step 2 – Loss of participation and conference with teacher.
- Step 3 - Loss of participation and office referral.
- Step 4 – Removal from class.

Tardiness:

It is your responsibility to be to class on time. Chronic tardiness to class will result in the above consequences.

Immediate Removal from Class:

Due to safety concerns, the following actions in class or laboratory will result in Immediate removal and an office referral:

1. Putting others in danger of injury.
2. Refusal to follow teacher all directions.
3. Out of control verbally or physically.
4. Distraction other students.
5. Misuse of equipment or intentionally damaging school property.
6. As needed by the instructor.

If you do not understand something -- Ask!