

Engineering 1

Welcome to Engineering 1!! This syllabus outlines the Engineering 1 course for the 2026-2027 school year. Course policies, expectations, and topics will be outlined in this document. I am looking forward to a great year!

Contact Information

Teacher: Albert Kamego
Email: akamego@gmail.com
Phone: (940) 497-4031
Conference Time: 6th period 12:35 pm - 1:20 pm

Materials

Spiral Notebook
pen
pencil

Late Work

We will follow Lake Dallas ISD's late work policy.

Grades

Major: 40%
Exams and Projects

Minor: 60%
Assignments, Exit Tickets, Checkpoints,
Other Daily Work

Technology and Electronic Devices

Phones and other electronics should be turned off and kept in their bags. Phones and electronic devices are not allowed to be used in class. Students who do not follow the policy will be subject to disciplinary action as outlined by Lake Dallas ISD.

Course Overview

Unit 1: Engineering Ethics

- **Learning objectives:** Engineering Ethics Science-Technology, Emerging Technology, Engineering Design Process
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 2: Engineering Design Process

- **Learning objectives:** Professional Communication, CAD, Visualization Techniques, Engineering Portfolio, Collaborative Tools
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 3: Documentation

- **Learning objectives:** Master Safety Tests, Follow Safety Guidelines, Safety Terminology, Classify Hazardous Waste, Describe Disposal of Hazardous Waste
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 4: Project Management

- **Learning objectives:** How Technology Affects Society and History, Technological Progress, Impact of Technological advances
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 5: Engineers in the Workplace

- **Learning objectives:** Engineering Design Process, Chemical-Mechanical-Physical Properties, Problem Solving Techniques, Units of Measurement, Benefit-Risk of Design
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Course Overview: Spring Semester

Unit 6: Project Team Roles

- **Learning objectives:** Roles-Responsibilities-Tasks on a Project team
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 7: Safe Work Habits

- **Learning objectives:** PPE, lab safety, maintenance, identify hazards
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 8: Visual and Spatial Reasoning

- **Learning objectives:** 2D and 3D object representation, Multi-views and projections
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 9: CADD

- **Learning objectives:** Best Practices, Views, Techniques, CADD models-drawings
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 10: Product Design

- **Learning objectives:** Design Technology, CADD Applications and drawings
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 11: Building a Prototype

- **Learning objectives:** Identify steps and tool to create a prototype, evaluate and present the prototype
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 12: Open-Ended Real-World Problems

- **Learning objectives:** Identify Engineering Problems, Evaluate and Test Solutions, Justify a Solution
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets

Unit 13: Present a Solution

- **Learning objectives:** Present a Solution in a Professional Manner, Evaluate Feedback
- **Activities:** Assignments, Exams, Projects, Class Discussion, Exit Tickets