

Foundations of Engineering & Technology Syllabus

Academy of Richmond County High School – Room 407

Course Title: Foundations of Engineering & Technology

Instructor: Mr. Israel Butler, M.Ed.

Room: 407

Email: Butleis@richmond.k12.ga.us

Office Hours: Monday - Friday, 8:00 AM - 9:00 AM and 3:15 PM - 4:00 PM

Course Description

Foundations of Engineering & Technology is a first-year engineering course designed to provide students with fundamental technological literacy. This course covers the history, systems, and processes of invention and innovation, and it introduces students to various engineering disciplines and career pathways. Students will engage in hands-on activities and projects to develop essential skills in engineering design, technical drawing, CAD, robotics, and more.

Course Objectives

- Understand basic engineering concepts and terminology.
- Explore various engineering career pathways.
- Develop technical skills in design, robotics, and programming.
- Apply the engineering design process to real-world problems.
- Create and present engineering projects.

Required Materials

- One-to-one laptop (provided by the district)
- Notebook for journaling and note-taking
- Pens, pencils, and other basic school supplies

Grading Policy

Grades will be based on a combination of major and minor assignments as follows:

- **Major Assignments (40%):** Projects, Presentations, Exams
- **Minor Assignments (60%):** Quizzes, Lab Activities, Coding Activities, Journals

Class Schedule

Week 1:

- Introduction to Engineering Concepts

- Career Exploration in Engineering
- Technical Skills Introduction
- Overview of Engineering Projects

Week 2:

- Detailed Study of Engineering Disciplines
- Engineering Design Process Introduction
- Hands-on Engineering Design Challenge
- Technical Drawing and CAD Introduction
- Review and Reflection on Engineering Concepts

Office Hours

Mr. Butler is available for additional support and consultation during office hours:

- **Morning:** 8:00 AM - 9:00 AM
- **Afternoon:** 3:15 PM - 4:00 PM

Students and parents are encouraged to reach out via email at Butleis@richmond.k12.ga.us to schedule appointments or ask questions.

Classroom Policies

- **Laptop Requirement:** Students are required to bring their one-to-one laptops to class every day. These laptops will be essential for completing assignments and participating in class activities.
- **Cell Phone Policy:** According to the district's policy, cell phones and other mobile devices are not allowed in the classroom. Students should keep their devices turned off and stored away during class time.

Expectations and Responsibilities

- **Attendance:** Regular attendance is crucial for success in this course. Students are expected to be present and on time for every class.
- **Participation:** Active participation in class discussions, activities, and projects is required.
- **Respect:** Students are expected to show respect for their peers, the instructor, and the classroom environment at all times.

Academic Integrity

Academic honesty is expected of all students. Any form of cheating, plagiarism, or dishonesty will result in disciplinary action according to the school's policies.

If you have any questions or concerns, please do not hesitate to contact me. Let's have a great year exploring the exciting world of engineering!

Mr. Israel Butler

Butleis@richmond.k12.ga.us