

Foundations of Engineering and Technology

Course Syllabus

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Course Title: Foundations of Engineering and Technology	Course Number
Textbook: Engineering Fundamentals An Introduction to Engineering 7 th Ed	Textbook Price
Textbook website: cengage.com	Academic Support: Monday: 3:45pm – 4:45pm

Course Description

Course: Foundations of Engineering and Technology **Prerequisite:** N/A

Course Description: Foundations of Engineering and Technology is the introductory course for all Georgia Engineering and Technology Education pathways. This course provides students with opportunities to develop fundamental technological literacy as they learn about the history, systems, and processes of invention and innovation.

Program Concentration/Course Title

ENGR-FET1 – Students will describe the career pathways that are encompassed by Georgia Engineering and Technology Education.

- (a) Identify potential career opportunities related to engineering and technology.
- (b) Explain the educational requirements and professional expectations associated with a chosen technological career path.
- (c) Participate in co-curricular and extracurricular activities related to career interests.
- (d) Participate in hands-on activities related to multiple engineering and technology pathways.

ENGR-FET2 – Students will describe the history of technological advancement.

- (a) Identify key historical events and their impact on engineering and technology.
- (b) Describe the issues of wealth, fame, power, and necessity that have influenced innovation and technological development.
- (c) List key persons who have contributed to technological change.

ENGR-FET3 – Students will explain the universal systems model.

- (a) Describe the processes of input, processing, output, and feedback that comprise the universal systems model.
- (b) Demonstrate applications of the universal systems model across the spectrum of technologies.

ENGR-FET4 – Students will apply mathematics and science to the solution of a technological problem.

- (a) Describe the role of mathematics and science in technological development.

ENGR-FET5 – Students will describe the essential systems and processes involved with invention, innovation, and entrepreneurship.

- (a) Explain the problem-solving processes used by engineers, designers, and other technologists.
- (b) Demonstrate creative approaches to problem solving.
- (c) Create a solution to a given problem.

ENGR-FET6 – Students will use visual and verbal communication to express basic design elements.

- (a) Demonstrate fundamentals of technical sketching.
- (b) Present a technical design using computer generated visuals.

Morrow High School Mission

The vision of Clayton County Public Schools is accountable for providing a globally competitive education that empowers students to achieve academic and personal goals and to become college and career ready, productive responsible citizens.

Academic Integrity Policy

The development of a sense of personal integrity and responsibility in our students is an important goal for our teaching efforts. Students at Morrow High School are expected to submit work for evaluation that has been completed solely by that student, unless group assignments have been so designated. The following actions are considered to be violations of academic integrity:

- Using or receiving unauthorized materials in a test situation.
- Passing on test answers and/or questions to someone who has not taken the test.
- Turning in work for credit that is not the student's own (i.e. gross plagiarism).

If a student is found to be in violation of the academic policy, the following measures should be taken:

- The student will receive a zero on the assignment and will not be allowed to complete the same.
- The teacher will inform the parent/guardian.
- Additional disciplinary action may be taken by the administration if warranted.

Required Materials

1 Binders (1 ½ inches) Mechanical Pencils and ink-pens
Notebook Paper Spiral bound notebook

Grading Scale

Area	Percentage	Area	Percentage
Daily Work	25%	Tests/Quizzes	30%
Projects	10%	Homework	15%
Final Exam	20%		

Grading System

A: 90-100 **B:** 80-89 **C:** 71-79 **D:** 70 **F:** 69 and below

Notebooks

You will need 1 notebooks for this class.

Everyday Notebook must be organized using the Cornell method:

Homework Policy (Board Policy IHB)

Homework is defined as any required study assigned to be done after regular class time. It is the policy and practice of Morrow High School to assign homework as a positive, valuable tool which:

- Reinforces classroom instruction
- Prepares students for upcoming topics
- Aids in evaluating student progress

Attendance

School attendance is directly linked to academic achievement; therefore, students are expected to attend school daily. Attendance will be recorded daily. However, illness and emergencies do occur. In such cases, students should notify the teacher prior to the absence (if possible) or upon return of the reason for the absence and turn in the proper excuse to the attendance office in the Vocational Bldg.

Make-Up Work Procedure for Absences

It is the practice of Morrow High School that students are provided an opportunity to make up missed assignments and/or tests regardless of the reason for absence, including ISS and OSS. However, it is the

student's responsibility to make arrangements and/or complete all missed work. If a student is absent, he or she is allowed to complete the missed work for credit (usually) within 3 days.

- *It is the student's responsibility to obtain the make-up work or missed assignments, tests, and class work from the teacher.*
- Students will present the make-up work to the teacher for grading or a grade of "0" will be given.

Conduct Grades

Conduct grades will be placed in the grade book based upon a student's behavior in class.

S = Satisfactory

N = Needs Improvement

U = Unsatisfactory

Student Signature: _____ **Date:** _____

Parent/Guardian Signature: _____ **Date:** _____

Parent/Guardian Phone #: _____ **Email:** _____