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# Foundations of Technology

Course Syllabus 2021-2022

Mr. Bowden

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## Course Description

Foundations of Technology is an activity-based course designed for students to learn about the nature of technology, the impact of technology on society, the engineering design and development process, the core technologies (the building blocks of the designed world) and the major enterprises that produce the goods and services of the designed world.

Students focus on the integration of technology, science, and mathematics to create solutions to problems associated with the major enterprises that produce the goods and services of the designed world. Problem solving experiences will center on the use of tools, machines, and materials to design and construct models, devices, and products that creatively solve complex technological problems.

*Foundations of Technology has been designated as a required course for all students in Harford County Public Schools as part of the Maryland State Department of Education's graduation requirements.*

## Goals for Student Learning

The **goals** of this course are to meet in parts of the state of Maryland Content Standards for Technology.

1. Students will develop an understanding of the nature of technology.
2. Students will develop abilities to assess the impacts of technology.
3. Students will demonstrate knowledge of and apply the engineering design and development process.
4. Students will demonstrate knowledge of and skills related to the core technologies, the building blocks of the designed world.
5. Students will demonstrate knowledge of the major enterprises that produce the goods and services of the designed world.

## Textbook and Materials

Textbook : **Technology (R. Thomas Wright)**

**One drive or USB  
Journal Booklet  
Small 3 ring binder  
Pencil/Pen**

## **Course Outline**

*Units will be implemented at appropriate times of the school year pending on availability of equipment and facilities.*

### **Unit I Introduction to Technology**

1. What is Technology?
2. Evolution Technology
3. History of Technology
4. Emerging Technologies
5. Design and Problem Solving
6. Impacts of Technology

### **Unit II Lab Safety**

1. Band saw
2. Drill press
3. Miter saw
4. Power drill
5. Brad Nailer
6. Hot glue gun

### **Unit III Core Technologies**

1. Mechanical
2. Structural
3. Material
4. Electrical
5. Electronic
6. Thermal
7. Fluid
8. Optical
9. Biotechnology

### **Unit IV Resources and Methods of Technology**

1. Resources
2. Technological Systems
3. Engineering

### **Unit V The Design World**

1. Communication Technology
2. Manufacturing Technology
3. Construction Technology
4. Transportation Technology
5. Power and Energy Technology
6. Biotechnology Systems

## **Mid-Term & Final**

There will be a mid-term and final during the school year with dates in accordance with the dates posted on the planner. All students will be required to take a mid-term and final. No student will be exempt from either a mid-term or final during the school year.

## **HCPS Grading Policy**

<b>PRODUCT (50%)</b> <i>Culminating Demonstration of Knowledge</i>	<b>PROCESS (30%)</b> <i>Addressing Specific Short-Term Learning Outcomes</i>	<b>PRACTICE (20%)</b> <i>Building Attitudes, Habits, and Skills</i>
Does it measure how well students achieved specific learning goals, standards, and/or competencies?	Does it provide feedback to students regarding growth towards the attainment of specific learning goals, standards and competencies?	Does it allow students to practice skills and/or reinforce content learning?
<ul style="list-style-type: none"><li>• Primarily completed in presence of teacher</li><li>• Rubric aligned to standards</li><li>• Accuracy graded</li></ul>	<ul style="list-style-type: none"><li>• Primarily completed in presence of teacher</li><li>• Rubric aligned to standards</li><li>• Accuracy graded</li></ul>	<ul style="list-style-type: none"><li>• Graded for completion and participation</li></ul>

*We will have **no** extra credit in Foundations of Technology.*

## **Absent Work Policy**

All assignments should be submitted on time. Students will be given the number of class periods equal to the number of lawful class periods absent to turn in completed make up assignments without penalty.

## **Late Work Policy**

All assignments should be submitted on time in order to earn full credit. Any assignment, (product, process, or practice) will be allowed to be turned in late for one letter grade deduction from the grade a student earns on the assignment. In order to earn credit for late assignments, students must submit assignments by the end of the day on Wednesday (except for the last week of the quarter) following the designated HAC update. Students are only able to submit assignments that have an established due date within the grading window before the designated HAC update. Assignment that are turned in for late credit will be identified by a footnote in HAC to include a statement about the deduction of a letter grade due to the lateness of the assignment.

## Grading Window Designated HAC Update Late Work Due Date

Grading Window	Designated HAC Update	Late Work Due Date
September 8- September 24	September 24	September 29
September 27- October 13	October 13	October 20
October 14- October 29	October 29	November 5 (Friday)
November 8- November 19	November 19	November 24
November 22- December 10	December 10	December 15
December 13- January 13	January 13	January 21 (Friday)
January 24- February 11	February 11	February 16
February 14- February 25	February 25	March 2
February 28- March 11	March 11	March 16
March 14- March 25	March 25	March 31 (Thursday)
April 1- April 22	April 22	April 27
April 25- May 6	May 6	May 11
May 11- May 20	May 20	May 25

### **Academic Integrity**

Academic integrity is taking responsibility for the quality and completion of one's own work. Academic dishonesty is taking someone else's work and claiming it as one's own. Students at Bel Air High School are responsible for knowing what is considered to be Academic Dishonesty and the subsequent consequences. More information can be found in the BAHS Student Planner.

### **Classroom Rules and Procedures**

No eating in class  
Be on time  
Be respectful of peers

### **Office Hours**

Before and After School  
(by appointment)

## **Cell Phone Policy**

Students will place their electronic devices (including, but not limited to, cell phones, listening devices, smart watches, laptops, and iPads), either on silent or off, in a teacher designated area as they enter each classroom. Teachers will review with students the specific location for each room. The devices will remain in the teacher designated areas unless teachers explicitly tell students to use them as a part of classroom instruction.

- Devices will remain in the teacher designated area during bathroom visits.
- Devices will be retrieved from the teacher designated area at the end of the class at the direction of the teacher.
- School-appropriate cellphone use is permitted during class changes and lunch. Students are not permitted to make phone calls during school hours.
- Students will NOT be permitted to carry their electronic devices in a book bag throughout the school day.

***If the electronic device policy is violated, the student shall then be subject to disciplinary action up to, and including, confiscation of the device as well as an office referral.***

**See the attachment below**

# Foundations of Technology

2021-2022 School Year

## Parent and Student Contract

Parent: Please sign showing you have read and understand the class policies and procedures on the previous pages.

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Cell Contact Number: ( ) \_\_\_\_\_ - \_\_\_\_\_

Home Contact Number: ( ) \_\_\_\_\_ - \_\_\_\_\_

E~Mail: \_\_\_\_\_ @ \_\_\_\_\_

E~Mail: \_\_\_\_\_ @ \_\_\_\_\_

Student: I have read and understand the class policies and procedures on the previous pages. I promise to abide by these guidelines and to be diligent in my effort during class.

Print name: \_\_\_\_\_

Signature: \_\_\_\_\_

Your E~Mail: \_\_\_\_\_ @ \_\_\_\_\_

**Please keep your copy of the syllabus in your notebook.**

IT IS THE STUDENT'S RESPONSIBILITY TO REQUEST ANY MAKE UP WORK.

If you are overwhelmed or are having trouble, talk to me immediately. It is better to approach me for extra help than to wait until work is late or not to do it at all. I am here to help you any way I can.