



**Construction Technology**  
Woodbridge Senior High School  
2019-2020 School Year



Mr. DeFelice  
Mr. Frederick  
Mr. Soresino

### **I. Grading Procedures: Gradebook Set Up**

Grades will be calculated based upon an average of total points earned each grading period. A percent score will be awarded for each assignment and each assignment will be weighted accordingly.

#### **Summative Assessments**

These assessments are a way for students to demonstrate that they have mastered learning target(s) that have been addressed during a unit of study. This type of assessment could occur during a unit or at the end of a unit. Summative assessments are often *high stakes*, which means that they have heavier weights. These assessments include:

Projects: 65%  
Tests/Quizzes: 25%

#### **Formative Assessments**

The goal of formative assessment is to *monitor student learning* to provide ongoing feedback towards a learning target that can be used by instructors to improve their teaching and by students to improve their learning. Formative assessments are generally *low stakes*, which means that they have low or no weight. These assessments include:

Classwork: 10%

The Prince William County Public Schools' grading scale will be used and is as follows:

A = 90-100%	C = 70-76%
B+ = 87-89%	D+ = 67-69%
B = 80-86%	D = 60-66%
C+ = 77-79%	F = 59% and below

### **II. Multiple Opportunities to Demonstrate Mastery:**

Students that would like to improve scores on formative and summative assessments to demonstrate mastery will have opportunities during flex or open lab on Thursdays. Retakes and resubmissions should be completed no later than two weeks after the due date.

### **III. Late work policy:**

Late work will be accepted no later than two weeks (10 school days) after the assignment is due. Each day an assignment is past due, 5 percentage points will be subtracted from the overall grade on the assignment. Students are encouraged to submit assignments after school on the due date to avoid losing credit.

## Construction Technology 2019-2020

Room 1419

Phone: 703-497-8000

Instructor: \_\_\_\_\_

Instructor Email: \_\_\_\_\_

Student Name: \_\_\_\_\_

Class Period: \_\_\_\_\_



Students and Parents,

Welcome to Construction Technology! I am sure that you are anticipating an exciting year at Woodbridge Senior High School. Construction Technology will be a very exciting course in which your son or daughter will learn about many different aspects of the field of construction and other related fields. They will apply knowledge gained in math, science, social studies, and language arts, to learn about construction in support of the SOLs. You will find that in this course students will build a great deal of practical knowledge, skill, and confidence that will serve them throughout their lifetime.

### Course Objectives:

- Learn proper safety procedures for tools and machinery
- Learn blueprint reading and symbols associated with architecture
- Learn vocabulary and terms associated with construction
- Learn math concepts and principles used in construction
- Learn site development
- Properly build a scale or full sized frame structure
- Learn basic residential plumbing and electric systems
- Explore careers associated with the construction industry
- Improve the ability to work as a team unit

### Safety:

A large portion of the course is learning about safety in the field of construction, how to safely use tools, and how to safely carry out construction operations. This is to ensure that your son or daughter can safely and successfully complete all assignments in this course. Prior to using any tools or performing any construction operations your son or daughter must score a 100% on the Safety Test. All activities in this course that will involve tools or any operations will be supervised by your instructor and only by your instructor. In the event of a substitute teacher students will not be permitted to use any tools or perform any construction operations, students will work on alternate assignments. If you have any questions or concerns about any safety issues, feel free to contact me by phone or e-mail.

### Google Classroom:

Technological literacy is an important part of this course. Students will have access to the Construction Technology Google Classroom page which gives them access to course materials. They will be required to upload photos of their projects throughout the year. It is the student's responsibility to obtain and remember a login and password for google classroom and to find an access point (home, school library, public library, etc).

### Flex Period:

This year there will be a rotating schedule of periods throughout the year. This is dedicated work time and you are required to be there.

### Construction Class Routine:

To ensure the class can progress on time and work safely students must follow the class routine outlined below.

1. Students enter the classroom without electronics, food, drinks and gum.
2. Students get out a pencil and paper, then store their belongings in a classroom locker.
3. Students retrieve their notebook portfolio from their storage cabinet.
4. Students sit down in their assigned seat and answer the starter questions posted on the board.

*The tasks above should be completed prior to your instructor taking attendance or within the first two minutes of class. Failure to follow these rules will result in a tardy.*

5. At ten minutes to the bell, students clean-up, completing the specified clean-up procedures. Students may retrieve their belongings when the bell rings or when your instructor ends clean-up for the class.

### Portfolios:

Each student will be given a portfolio folder to keep in class. Students are responsible for keeping course documents, notes, project plans, assignments, and tests in their portfolios. **Daily starter questions** and vocabulary will be kept in the portfolio. These activities will be a continuous running list. Students may use specified notes and documents from their portfolio for some tests and quizzes. Portfolios will be graded quarterly for completion. At no time, should portfolio folders be removed from room 1419.

### Open Lab:

To provide students with more time to work on projects and make up assignments, we will host open lab every Thursday from 2:30 to 4:15 (students must clean-up at 4:00). During open lab, students will be provided with supervised time to use machines and tools.

### CTE Grading:

To better communicate with parents on types of assignments and expected outcomes, the assignments in this course will all fall into the following categories with the corresponding weights.

Assignment Category	Description	Weight
Classwork	Student lab work and progress on assignments and projects. Assignments to develop student understanding inside or outside class.	10%
Completed Projects	All manner of projects (or benchmarks of projects) completed over multiple class periods. Projects will be assessed by rubric.	65%
Tests/Quizzes	Test: Assessment given on completion of a unit. Quiz: Assessment given to track student learning and check for understanding.	25%

Assignment titles in the gradebook will be modeled after the example below. Assignment descriptions will include specific course learning targets covered in that assignment.

Example:

Assignment title: Test\_machine tool safety (x3)

Assignment Description: Safety test of power tools and machines. LT 4. I can list and follow general safety rules for a construction/production lab environment LT 6. I can safely use machine/power tools to accomplish tasks.

**\*\*Student Requirements:**

Students will be required to have notebook paper on which to take notes, at least two pencils to start with, and dress in a manner that is both safe and practical for a shop environment (see safety guidelines). Students will be required to follow Prince William County School policies regarding student behavior. Students that are not dressed appropriately will be given alternate assignments that do not involve hands-on activities. Students that cannot follow safety and behavior will be given alternate assignments and/or referred to their administrator.

**Classroom Rules:**

When the instructor speaks, you are silent and you are listening.

1. Follow and abide by all rules and safety procedures in the Prince William County Student Code of Behavior and the Technology Education Safety Guide.
2. Follow the classroom routines.
3. Be prepared for class at all times.
  - a. Bring a pencil and paper to class every day.
4. Act in a professional manner at all times.
  - a. No profanity
  - b. No gum
  - c. No food or drinks
5. Be respectful to all people, their belongings, and their projects at all times.
6. Bring Your Own Device. Phones are permitted in class, however they must be silent and put away during instruction.

**Contacting and meeting with your instructor:**

Contact me by phone before and after school. I will be available before and after school for any possible meetings.

*If you have any questions, concerns, or special needs, please do not hesitate to contact me. My door is always open and I check my e-mail frequently. Let's have a GREAT year!*

I certify that I have read and understand the information stated above and I will direct any questions I have to my instructor.

**Signatures:**

**Student**

**Date**

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**Parent**

**Date**

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## Construction Technology Learning Targets

1. I can correctly identify tools and units used in standard measurement.
2. I can take and record measurements to an accuracy of 1/16<sup>th</sup> of an inch.
3. I can interpret data and solve equations that are common to the construction industry.
4. I can list and follow general safety rules for a construction/production lab environment
5. I can safely use hand tools to accomplish tasks.
6. I can safely use machine/power tools to accomplish tasks.
7. I can work as a team member to clean and maintain the lab and tools.
8. I can identify and define at least 10 careers associated with the construction industry.
9. I can identify educational pathways for at least 10 construction careers.
10. I can interpret 10 architectural symbols that are commonly found on blueprints.
11. I can identify 5 views or drawing formats used in blueprints.
12. I can use a set of construction plans to accurately gather data about a house, structure, or device.
13. I can draw a floor plan for a house to scale.
14. I can build a scale model of a structure using a plans and blueprints.
15. I can identify documents other than blueprints, necessary for construction.
16. I can read plans and use hand/machine tools to build a product.
17. I can list foundation types that are used in residential construction.
18. I can identify a foundation from a drawing or in person.
19. I can describe the purpose and importance of a foundation.
20. I can name at least 20 parts of a house frame.
21. I can identify members of the floor, wall and roof frame from a drawing or in person.
22. I can describe the purpose and importance of a house frame.
23. I can describe the purpose and importance of individual parts of the house frame.
24. I can use identify and state the purpose of at least 30 parts/tools used in electrical wiring.
25. I can build at least 2 common electrical circuits found in residential electrical systems.
26. I work in a small team to build a product.
27. I can use identify and state the purpose of at least 30 parts/tools used in residential plumbing systems.
28. I can perform processes to fit copper, iron, and pvc pipe.
29. I can build a plumbing fixture consisting of multiple types of pipe that will hold a pressure of at least 40 psi.
30. I can describe the process to install common plumbing fixtures.
31. I work in a large team to build a full size structure that fulfills current building code requirements.

## Tentative Class Schedule

This is a general schedule, actual dates will vary based on classes meeting on Green or Gold days, snow days and testing schedules. This schedule is subject to change at any time.

Assignment/Project	Month
Prior Knowledge Assessment	September
Measurement	
Start Safety Unit	
Start safety project "Key to Safety"	
Safety test	
Begin Reading "Measure Twice Cut Once"	
Start Boomerang project	
Safety Project Due "Key to Safety"	
Planning for Construction Unit: Start	
Planning for Construction Test & SSR "Measure Twice Cut Once"	
Reading Construction Plans: Start	
Reading Construction Plans Test & SSR "Measure Twice Cut Once"	
Start Floor plan drawing activity	
Floor plan rough draft due for in-person review	
"Measure Twice Cut Once" Packet Due	
Hand Tool Test	
Notebook Check	
Floor Plan Final Draft Due	
Boomerang Due	
End of 1 <sup>st</sup> Quarter	
Start 2x4 Table project	November
Start Foundations Unit	
Foundations Test	
Start Floor Framing Unit AND Foundations Homework Due	December
Floor Framing Test AND Floor Framing Homework Due	
2x4 Benchmark #1 Legs and Skirt Completed	
Start Wall Framing Unit	January
Wall Framing Test	
Start Roof Framing Unit with Wall Framing Review	
2x4 Benchmark #2 Table Top Due	
Roof Framing Test	
Roof Framing Homework Due	
Framing Live identification test	
2x4 Table Due	
Notebook check	
End of 2 <sup>nd</sup> Quarter	

Assignment/Project	Month
Start Electrical Parts Unit	February-March
Electrical Blueprint Assignment: Start	
Electrical Parts Test	
Electrical Homework Due	
Electrical Blueprint Assignment Due	
Start Electrical Wiring Assignment	
Electrical Wiring Assignment Due	April
Notebook Check	
End of 3 <sup>rd</sup> Quarter	
Plumbing Parts Unit: Start	May-June
Plumbing Parts Test	
Plumbing Homework Due	
Plumbing Assignment: Start	
All Construction Processes Stop; Lab Clean-Up; Begin Exam Review	
Last Day of School	