



WILLIAM D. FORD CAREER-TECHNICAL CENTER
CAREER • TECH

36455 Marquette St., Westland, MI 48185

Construction Technology

2024-2025

CIP Code: 46.000, PSN: 14204

Instructors: Patrick Dudek

Teacher Assistants: Rob Wysong

Phone Number: (734) 419-2100 **Fax Number:** (734) 595-2127

Email: dudekp@wwcsd.net **Website:** www.wwcsd.net

Prerequisites: None

Course Code:

*V0510 Construction Technology 1 (1 year, 3 credits)

*V0510EM Construction Technology 1-Embedded Algebra 2 (1 year, 2 credits and 1 credit Algebra 2)

Credit: This class is valued at 3.0 credits over the course of one year. Successful completion of this one-year CTE program may have credits counted as any of the following:

- Algebra 2 credit
- Senior year math-related credit
- Visual, performing and applied arts credit requirement
- 2nd-year world language credit (counselor determination)
- 3rd-year science credit (counselor determination)

Congratulations on your decision to enroll in Construction Technology! Construction is a noble trade affording you a highly competitive wage and the ability to work for yourself. There is great pride in a job well done and we strive to show you how valued these skills are. When someone has a hole in their roof they will call you and pay you fairly for the work you do. This course is unlike most educational experiences you have encountered. We work with our hands, learn real-world skills, and are part of an established network of tradespeople. Welcome to our team!

Required Textbook:

Title: Residential Construction Academy: Carpentry, 2nd Edition by Floyd Vogt (2008)

Title: Carpentry and Building Construction by McGraw-Hill (2016)

Online Instruction:

Google Classroom

- a) You will receive an email inviting you to join Google Classroom
- b) Some lessons will be linked to Google Classroom

Standards-based Grading Scale

Grades in this class will be calculated on mastery of standards and competencies in a 4-point system.

Site/ Lab Work Standards

These points are based on how a student performs and meets standards during class projects.

- 4 - Completes tasks and shows leadership skills
- 3 - Can complete tasks all by themselves
- 2 - Can complete tasks with help
- 1 - Exposed to material
- 0 - Not Exposed

Grading Outline

- 40% Employability
- 50% Site/ Lab Work
- 10% Tests/Quizzes

What We Do

Every student will be participating in building a house from the ground up while building up skills in the classroom. All aspects of framing, including floors, walls, staircases, and roof systems will be covered. You will learn to install drywall, siding, shingles, windows, doors, baseboards, electrical, plumbing, and more. All the while, you are earning Algebra 2 credit with the hands-on approach.

A Day in the Life

- Boots, tool belt, safety glasses, and all other course materials are ready approximately 5 minutes after the bell rings
- Most days there will be a quick recap of the material, an introduction of new material, and a demonstration.
- The remainder of the time is spent out of your seat, in the shop, working on the assignment.
- Tests and writes will be assigned on occasion
- Breaks are earned (approximately 10-15 minutes per instructor).

Basic Class Rules

1. Keep hands, feet, and mouth to yourself
2. Refrain from talking while the instructor has the floor
3. Disruptive behavior will not be tolerated
4. Give your full attention to each assignment and stay on task
5. Be on time and ready to work
6. No phones or headphones in the Lab area (NO EXCEPTIONS)

Student Leadership

All students will apply their knowledge and leadership skills through classroom competitions. These competitions aim for students to develop workplace competencies, such as teamwork, leadership, communication, critical thinking, and academic proficiency aligned with industry standards and expectations. Leadership skills are fostered by encouraging students to develop and participate in planning decision-making and running for elected positions within the classroom. All projects are designed and evaluated by people in the industry. Students may also participate in individual contests with other Career Tech Centers and post-secondary institutions.

Student Credentials/Certification

As suggested by the Construction Industry, students will earn their OSHA-10 and can take OSHA-30. In addition, we also offer a 60-hour builders-per-license for qualifying students. **For students to be eligible to receive a 60-Hour building Pre-license they will have to meet the following requirements:**

- Have a C or higher throughout the year
- Do not miss more than 20 days throughout the school year. **This includes suspensions, but not school-related absences.**
- Pass the practice test with an 80% or higher

Attendance

Attendance is critical to success in this class. If absent, you may not receive full credit for employability expectations. If absent, it is the student's responsibility to get the work from the instructor and make it up promptly.

*******If you are going to be absent make sure to email me at: dudekp@wwcsd.net**

Letting your boss know you will be absent is an employable practice and will gain back some employability points.

Work-Based Learning

Work-based learning is a valuable experience in which every Career and Technical Education student is required to participate. All students will be allowed to attend at least one field experience each school year. Those students who do not attend the scheduled experience(s) will be required to find a site where they will spend a minimum of one class period in a business related to their program of study. The student will be required to get the teacher's and parent/guardian's permission, fill out a training agreement to be signed by the site supervisor, and provide their own transportation to and from the site. Upon completion of the field experience, the student will turn in a question-and-answer assignment provided by the teacher regarding the experience

Tests, Quizzes, and Course Work

*If absent on the day of a test, you must take the test the following day. You are responsible for asking the teacher for the test when you return.

*Deadlines are important in Construction.

*Students are responsible for completing projects as they work through the school year.

Unemployment

If showing unsafe practices and disregard for classroom policies, you will no longer have the privilege of working in the shop environment for the semester. You will collect your work experience from the corresponding chapter in our course textbook.

Competencies Covered

Semester 1

- Implement job site safety rules and regulations to maintain safe and healthy work conditions (A1)
- Describe the various industry operations associated with the construction trades field (A2)
- Demonstrate language arts, mathematics, and science knowledge and skills required for educational and career opportunities (A3)
- Develop a broad range of career and employability skills necessary for a career beyond high school career practices (A6)
- Develop a variety of communication skills necessary for employment (A4)
- Identify and describe a variety of building and project management methods needed to complete a construction project (A7)
- Describe and demonstrate leadership and teamwork skills necessary for employment (B2)
- Describe and implement a variety of problem-solving and critical thinking strategies as necessary techniques for successful employment (A5)
- Identify and demonstrate the use of hand, power, and construction related machinery (B1)
- Identify and describe specific materials and methods associated with residential construction (B3)

Semester 2

- Identify and describe construction trends related to green practices and construction (C2)
- Understand and use necessary technology-related skill sets associated with career development and the field of construction trades (C3)
- Demonstrate and apply knowledge of specific materials and methods associated with residential construction (C1)
- Identify and describe the use of heavy equipment in construction trades (D1)
- Identify and describe knowledge of heavy/highway construction and civil projects, materials, and methods in the construction of different projects (D2)
- Identify, describe, and demonstrate the necessary elements in business and project management as aligned to the field of construction trades (D3)

Post-Secondary Articulated Credit

Students may be eligible to receive free college credit for successful completion of the Construction class. The qualifications and number of college credit hours vary by a post-secondary institution. This course has articulated credit agreements with Baker College, Davenport University, Ferris State University, Schoolcraft College, Washtenaw Community College and Wayne County Community College. Additional agreements may exist upon request with the advisor at the incoming institution.

Standard-based grading

	0	1	2	3	4
Employability	Missing 4 variables	Missing 3 variables	Missing 2 variables	Missing 1 variables	Be Safe Be Respectful Be Responsible Be Engaged

What does it mean to be Safe?

- Have work boots, safety glasses, and tool belts on when working with tools
- There will be no playing games in this classroom
- Be aware of hazards and report any that you find

What does it mean to be Respectful?

- Treat others how you want to be treated
- Willing to collaborate with peers
- No stealing of classmates' materials
- Make a welcoming environment for everyone
- Respect tools and equipment

What does it mean to be Responsible?

- Attending class
- Cleaning up classroom and lab
- Being productive

What does it mean to be Engaged?

- Participate in the learning process
- Demonstrates an understanding of content
- Show passion in your work

Student and Parent Acknowledgement

Attendance- Daily attendance is critical as your work and employability can not be measured if you aren't here. Students receive a grade per project and students will not get a favorable grade in the class if they are not here. Students are responsible for asking the instructor for what they missed for the days they were absent.

NOTE: Group projects can not be made up.

Cell Phones- Cell phones earbuds are NOT allowed in the lab area, no exceptions! Students can lock their phones in their lockers and check them during their break. This is an environment in which danger is present at all times and therefore full attention to safety must be given at all times.

Disciplinary Actions- Safety is the number one priority in this class and failure to follow the expectations will result in the following consequences:

1. The first action will be a warning
2. If the student still isn't following the rules, they will sit down with the instructor and talk about the safety procedures before they can go back to work.
3. For the third action, the student won't be allowed to work and will be responsible for doing the corresponding chapter in the textbook while also getting a call home.
4. If the student is still being unsafe/disruptive at this point, they will be sent to the office and possibly an in-person meeting with parents will be needed.
5. NOTE: Actions can be skipped if needed.

Food- Students are not allowed to eat food in any classroom at William D. Ford, including the Construction classroom. Students have time before the bell to eat food in the Commons area.

Driving- Students coming from different schools will have the option to apply for a driving pass if they would like to drive to William D. Ford (Wayne students will have to ride the bus provided for them).

With this pass, students CAN NOT:

- Drive other students to school
- Deliver food for students
- Be tardy more than 5 times

If students cannot follow these rules then their driving pass will be revoked and will have to ride the bus to and from William D. Ford

Note: The above content is subject to adjustments throughout the school year.

Please sign and have your parent(s)/guardian(s) sign below after you have read the Construction Technology 1 syllabus. By signing below, you are acknowledging the requirements for this class and agreeing to follow them. I am looking forward to helping you learn a valuable trade and increasing your knowledge of other trades.

Student Signature _____ **Date** _____

Student Name Printed _____

****Email** _____

Parent/Guardian Signature _____

Name Printed _____ **Date** _____

**** Email** _____

** Email addresses will not be used except as a means to communicate about individual student progress. If you have any questions during the school year, you can contact Mr. Dudek at dudekp@wwcsd.net.