

Construction Technologies III

Syllabus

WILFRED JR. M. CORPUS

Imagine, Believe, and Achieve

The **Construction Technologies III** instructional program prepares students with the knowledge and hands-on skills needed for careers in the construction industry.

Students will develop competencies in masonry, floor and ceiling framing, wall framing, roof framing, green building sustainability, exterior and interior finishing, plumbing systems, electrical systems, and drywall installation while emphasizing safety, craftsmanship, teamwork, and professionalism.

Through classroom instruction, laboratory activities, and project-based learning, students will apply industry standards and construction techniques to real-world situations. This course follows the Arizona Department of Education Construction Technologies Curriculum and provides opportunities for students to prepare for industry-recognized credentials. Students who successfully complete this course may earn one elective credit while preparing for the **NCCER CORE Certificate**.

Grading Scale:

A	90 – 100%	Excellent
B	80 – 89%	Above Average
C	70 – 79%	Average
D	60 – 69%	Below Average
F	<60%	Failing
P	Passing	
I	Incomplete	

Bring the following items to class every day:

Notebook or binder with paper
Pen or pencil
Planner

DO NOT bring in class:

Food
Drinks
Anything prohibited by the student handbook

Expectations on all of your assignments and work:

1. Give full attention to your work.
2. Remember to write your name, class period and date on all your assignments.
3. Do not write or draw anything unnecessary on your work.
4. Do your best work everyday.
5. Place all your work which is to be turned into the teacher in the wire basket provided.

I follow the policy of “NO NAME, NO GRADE”

“Do your best work.”

Tardiness:

All tardies will be handled according to school policy. You should not be tardy to class as you have adequate time between classes. Use this time to get your materials for class and for bathroom breaks.

“Be Respectful!”

Absences:

Any missed work should be made up as soon as possible. **You are responsible for asking make-up work from me when you return.** For everyday you are absent, you will miss two or more assignments. Make sure to ask for help from me or from your classmate. If a student is sick or goes to a school activity, the student is responsible to make-up the work that is missed during their absence.

Basic Classroom Rules:

- Be on time.
- Do your best work.
- Be respectful.
 - Peers.
 - School properties.
- Be teachable/ flexible
- Follow all school rules.
- Be seated immediately and ready to work on assignments for the period.
- Please do not bring out any electronic devices (cell phones, headphones, games, etc.). You will be asked to bring it to me for safekeeping.
- Keep the room clean.
- I do not tolerate offensive language, physical harm to others or disruptions in class.
- Follow proper dress code.
- No food or drinks in class

Basic classroom procedures:

- Get your work for the day on the cart by the door.
- Listen attentively to the lecture and explanation about the work.
- Do your best work.
- Place all your work which is to be turned into the teacher in the wire basket provided. Make sure to turn in on the correct basket.
- Use your planner to write down assignments and any other important details, such as days missed and work turned in or makeup work.
- You are to remain in your seats until I dismiss the class at the end of the period. The bell does not dismiss the class. You do not dismiss the class.

SKILLS USA

SkillsUSA is a national Career and Technical Student Organization that prepares students for careers in skilled trades and technical industries. Students have opportunities to compete in leadership and construction competitions, participate in conferences, develop employability skills, and demonstrate their technical abilities through local, state, and national events.

State Assessment

The state test is a requirement to all seniors. Senior should pass the state test with 60%. By passing the test, they can be exempted in taking the final exam.

Important Non-Discrimination

Whiteriver Unified School District does not discriminate on the basis of race, color, national origin, sex, sexual orientation, age, religion, or disability in admission or access to, or treatment or employment in, its educational programs or activities. Inquiries concerning Title VI, Title VII, Title IX, Section 504, and Americans With Disabilities Act may be referred to Superintendent Office, 959 South Chief Avenue (PO Box 190), Whiteriver, Arizona 85941, (928) 358-5800, or to the Office for Civil Rights, U.S. Department of Education, 1244 Speer Boulevard, Denver, Colorado 80204.

Lab time

Construction Technologies II is a hands-on course in which students spend more than 51% of instructional time participating in laboratory activities, construction projects, and work-based learning experiences. Students will develop industry skills by safely using hand and power tools, performing masonry work, constructing floor, wall, ceiling, and roof framing systems, installing exterior and interior finishes, assembling basic plumbing and electrical systems, interpreting construction drawings, estimating materials, and applying sustainable building practices while demonstrating professionalism, teamwork, and effective communication. Students are expected to wear appropriate personal protective equipment (PPE), follow all laboratory safety procedures, maintain a clean and organized work area, and complete all activities according to industry standards to ensure a safe and productive learning environment.

Wilfred Jr. M. Corpus

Construction Teacher

480-535-5941 ext 821

Construction Technologies III Curriculum

Unit 1 – Masonry Construction	Unit 2 – Floor and Ceiling Framing	Unit 3 – Interior and Exterior Wall Framing
• Benefits of Masonry Construction • Masonry Materials • Masonry Techniques • Mortar and Grout • Mixing Mortar and Grout • Masonry Tools • Masonry Calculations • Brick and Block Installation • Cleaning Masonry Work • Evaluating Masonry with a Level	• Floor System Components • Reading Floor Plans • Floor Framing Plans • Types of Floor Frames • Floor Fasteners • Ceiling Components • Ceiling Accessories • Material Estimation • Floor Layout and Construction • Ceiling Framing	• Wall Framing Fundamentals • Building Codes and Specifications • Wall Layout • Material Estimation • Lumber, Panel, and Concrete Calculations • Wood and Metal Stud Walls • Exterior Wall Construction
Unit 4 – Roof Framing and Finishing	Unit 5 – Green Building Sustainability	Final Project
• Roof Plans • Roof Components • Roofing Applications • Roof Sheathing • Rafters and Trusses • Roof Material Estimation • Roof Framing and Finishing	• Sustainable Construction • Building Envelope • Insulation Systems • Energy-Efficient Building Materials • Air Sealing Techniques • Energy Conservation Products	• Exterior Finishes and Trim • Exterior Moldings • Fascia, Soffit, and Gutters • Siding and Stucco • Exterior Finish Installation

Unit 7 – Interior Trim and Stair Construction	Unit 8 – Plumbing Systems	Unit 9 – Electrical Systems
• Millwork • Interior Trim • Stair Design • Rule of 25 • Stair Railings • Stair Layout • Cost Estimation	• Water Supply Systems • Drain, Waste, and Vent Systems • Plumbing Fixtures • Copper and Plastic Pipe Installation • Water Distribution • Plumbing Assembly	• NFPA 70E Electrical Safety • Ohm's Law • Electrical Systems • Electrical Components • Electrical Materials • Electrical Tools • Electrical Rough-In • Device Installation
Unit 10 – Interior Wall and Ceiling Finishes	Final Project	
• Drywall Materials • Finishing Tools • Drywall Installation • Fasteners and Adhesives • Drywall Finishing • Painting Walls and Ceilings	• Construct and Finish a Residential Building Project • Material Estimation and Budget • Blueprint Interpretation • Safety Evaluation • Project Presentation	

Certificate Offered



NCCER CORE Certification

Topics include:

- Basic Safety
- Construction Math
- Hand Tools
- Power Tools
- Construction Drawings
- Communication Skills
- Employability Skills
- Material Handling
- Introduction to Construction Trades

This curriculum closely aligns with the Arizona Department of Education Construction Technologies standards while preparing students for advanced construction coursework and entry-level employment in the construction industry.

Student Name: _____

Period: _____

SIGNATURE PAGE

Please sign and return to your course teacher.

I have read and understand the contents of the **Construction Technologies III** syllabus. I promise to follow all the classroom rules and regulations in order to maintain a productive learning environment inside the classroom.

Student Signature

Date

Parent/Guardian Signature

Date