

Construction Basics Syllabus

WILFRED JR. M. CORPUS

Imagine, Believe, and Achieve

The **Construction Basics** instructional program introduces students to the fundamental knowledge, skills, and safety practices needed for success in the construction industry.

Students will develop an understanding of construction safety, construction documents, blueprint reading, building codes, technology tools, and the proper use of hand, power, and pneumatic tools. Through classroom instruction and hands-on laboratory activities, students will gain foundational construction skills while developing workplace habits including teamwork, communication, problem-solving, professionalism, and responsibility.

This course follows the Arizona Department of Education Construction Technologies Curriculum and provides students with opportunities to explore careers in the construction industry while preparing for advanced construction coursework and industry-recognized credentials. Students who successfully complete this course may earn one elective credit and begin preparation 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 nationally recognized Career and Technical Student Organization (CTSO) that prepares students for careers in skilled trades, technical occupations, and leadership opportunities. Through SkillsUSA activities, students develop leadership, teamwork, communication, and employability skills while participating in competitions, community service projects, and career development activities. SkillsUSA allows students to demonstrate their technical knowledge, professionalism, and commitment to excellence in the construction industry.

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 Basics is a hands-on course in which students participate in laboratory activities, demonstrations, and construction-related projects that reinforce classroom learning. Students will develop foundational construction skills by practicing workplace safety procedures, identifying construction tools and equipment, interpreting basic construction documents, understanding blueprint symbols and measurements, and applying proper techniques for using hand, power, and pneumatic tools. Students are expected to wear appropriate personal protective equipment (PPE), follow all laboratory safety procedures, maintain a clean and organized work area, and demonstrate professionalism, teamwork, and safe work practices throughout all activities.

Wilfred Jr. M. Corpus

Construction Teacher

480-535-5941 ext 821

Construction Technologies I Curriculum

Unit 1 – Maintain a Safe Work Environment	Unit 2 – Construction Documents and Technology Tools	Unit 3 – Hand, Power, and Pneumatic Tools
• Students will learn: • OSHA safety standards • Personal Protective Equipment (PPE) • Fall protection requirements • Safe lifting procedures • Caught-in, struck-by, and caught-between hazards • Lockout/Tagout (LOTO) procedures • Fire protection plans • Emergency procedures • Safety Data Sheets (SDS) • Electrical hazard safety • Fire types and extinguisher use • Work zone safety • Construction site signs and barriers • Safe tool operation and storage • Workplace housekeeping procedures • Reporting hazards, injuries, incidents, and near misses	• Students will learn: • Purpose of construction documents • Blueprint reading fundamentals • Construction drawings and diagrams • Specification sheets • Site layout plans • Cutting lists and schedules • Six types of construction drawings: • Civil Plans • Architectural Plans • Structural Plans • Mechanical Plans • Plumbing/Piping Plans • Electrical Plans • Students will also identify: • Title block • Drawing borders • Revision block • Legends • North arrows • Construction lines • Symbols • Keynotes • Drawing dimensions • Architectural and engineer scales • Metric scales • Students will understand: • Importance of building codes • National Electric Code (NEC) • International Building Code (IBC) • Plumbing Codes • State and local construction codes	• Students will learn: • Hand Tools • Hammers • Demolition tools • Chisels • Punches • Screwdrivers • Socket wrenches • Pliers • Basic construction hand tools • Layout, Marking, and Measurement Tools • Metal rulers • Carpenter's squares • Engineer's squares • Marking gauges • Sliding T-bevels • Marking knives • Measuring tools • Power and Pneumatic Tools • Students will identify and demonstrate safe use of: • Electric drills • Jack hammers • Jigsaws • Circular saws • Reciprocating saws • Cutoff saws • Miter saws • Table saws • Portable grinders • Bench grinders • Sanders • Power wrenches • Nail guns • Staple guns

	• Americans with Disabilities Act (ADA) • Technology applications include: • Email communication • Operating systems • Spreadsheet software • Word processing • Digital communication tools • Smartphones • Radios and communication devices • Drones • Robotics • Artificial Intelligence (AI) applications in construction	
Final Project Students will complete a construction fundamentals project demonstrating:		
• Safe work practices • Proper PPE usage • Construction tool identification • Blueprint interpretation • Measurement skills • Construction technology applications • Professional workplace behavior		

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 BASICS** 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