



MVHS
CONSTRUCTION TECHNOLOGY
PROGRAM OF STUDY

Expectations 2016-2017
Mr. Clark Hardy
Room 505

PROGRAM OF STUDY:

The program of study illustrates the sequence of academic and career and technical education coursework that is necessary for students to successfully transition into postsecondary educational opportunities and employment in their chosen career path.

PROGRAM STRUCTURE:

The core course sequencing provided in the following table serves as a guide to students for their Construction Technology program of study.

CONSTRCUTION TECHNOLOGY	
COUSE NAME	GRADE
Construction Technology I	9,10,11,12
Construction Technology II	10,11,12
Construction Technology III	11,12

CERTIFICATION OF PROGRAM COMPLETION:

A student will be given a certificate upon completion of the Construction Technology Program of Study which states the level of performance the pupil has attained in specific skills identified by representatives of business or industry. (per NAC 389.800 section 3b)

CTE GRADUATION ENDORSEMENT:

A student qualifies for a CTE endorsement on their high school diploma after successfully completing the Construction Technology Program of Study and meeting all academic requirements governing receipt of a standard diploma. (per NAC 389.815)

CTE / COLLEGE CREDIT:

Completion of the Construction Technology Program of Study may result in college credits depending on the college and current requirements.

INDUSTRY CIRTIFICATION/LICENCES:

Completion of the Construction Technology Program of Study should result in the student receiving their OSHA 10 Hr. safety certification.

CONSTRCUTION TECHNOLOGY I

COURSE DESCRIPTION:

This course will introduce students to the world of construction. Through a hands-on approach, each student will develop basic understanding in the areas of construction: safety, blueprint reading, framing, site layout techniques, floor systems, and wall systems. Practical application of safe work habits and the correct use of tools and equipment will be emphasized throughout this course.

TECHNICAL STANDARDS:

CONTENT STANDARD 1.0 : IDENTIFY LAB ORGANIZATION AND SAFETY PROCEDURES

Performance Standard 1.1 : Demonstrate General Lab Safety Rules and Procedures

Performance Indicators : 1.1.1-1.1.19

Performance Standard 1.2 : Identify and Utilize Hand Tools

Performance Indicators : 1.2.1-1.2.5

Performance Standard 1.3 : Identify and Utilize Power Tools and Equipment

Performance Indicators : 1.3.1-1.3.5

CONTENT STANDARD 2.0 : PERFORM GENERAL CONSTRUCTION SKILLS

Performance Standard 2.1 : Demonstrate Print Reading Practices

Performance Indicators : 2.1.1-2.1.4, 2.1.6

Performance Standard 2.2 : Apply Math Skills to Construction Applications

Performance Indicators : 2.2.1-2.2.9

Performance Standard 2.3 : Utilize Materials Handling Techniques

Performance Indicators : 2.3.1-2.3.2, 2.3.5

Performance Standard 2.4 : Explore Construction Career Opportunities

Performance Indicators : 2.4.1-2.4.6

CONTENT STANDARD 3.0 : APPLY SITE LAYOUT PRACTICES

Performance Standard 3.1 : Perform Site Layout Techniques

Performance Indicators : 3.1.2, 3.1.4, 3.1.7

CONTENT STANDARD 5.0 : UNDERSTAND AND UTILIZE FRAMING SYSTEMS

Performance Standard 5.1 : Identify and Install Floor Systems

Performance Indicators : 5.1.1-5.1.13

Performance Standard 5.2 : Identify and Install Wall and Ceiling Systems

Performance Indicators : 5.2.1-5.2.11

CONTENT STANDARD 7.0 : APPLY ELECTRICAL PRINCIPLES

Performance Standard 7.1 : Identify Electrical Safety Procedures

Performance Indicators : 7.1.1-7.1.5

CONSTRUCTION TECHNOLOGY II

COURSE DESCRIPTION:

This course is a continuation of Construction Technology I. This course provides intermediate construction students with knowledge and skills in material handling, surveying, site development, concrete, masonry, roof systems, and electrical systems. The appropriate use of technology and industry-standard equipment is an integral part of this course.

TECHNICAL STANDARDS:

CONTENT STANDARD 2.0 : PERFORM GENERAL CONSTRUCTION SKILLS

Performance Standard 2.1 : Demonstrate Print Reading Practices

Performance Indicators : 2.1.5, 2.1.7

Performance Standard 2.3 : Utilize Materials Handling Techniques

Performance Indicators : 2.3.3-2.3.4

CONTENT STANDARD 3.0 : APPLY SITE LAYOUT PRACTICES

Performance Standard 3.1 : Perform Site Layout Techniques
Performance Indicators : 3.1.1, 3.1.3, 3.1.5-3.1.6

CONTENT STANDARD 4.0 : UNDERSTAND THE PROPERTIES AND UTILIZATION OF CONCRETE AND MASONRY SYSTEMS

Performance Standard 4.1 : Identify Concrete, Reinforcing Materials, and Forming Applications
Performance Indicators : 4.1.1-4.1.8
Performance Standard 4.2 : Apply Concrete Handling and Placing Techniques
Performance Indicators : 4.2.1-4.2.7
Performance Standard 4.3 : Explore the Masonry Industry
Performance Indicators : 4.3.1-4.3.4
Performance Standard 4.4 : Apply Advanced Masonry Installation Techniques
Performance Indicators : 4.4.1-4.4.8

CONTENT STANDARD 5.0 : UNDERSTAND AND UTILIZE FRAMING SYSTEMS

Performance Standard 5.3 : Identify and Install Roof Systems
Performance Indicators : 5.3.1-5.3.10

CONTENT STANDARD 7.0 : APPLY ELECTRICAL PRINCIPLES

Performance Standard 7.2 : Identify Fundamental Electrical Systems
Performance Indicators : 7.2.1-7.2.13

CONSTRUCTION TECHNOLOGY III

COURSE DESCRIPTION:

This course is a continuation of Construction Technology II. This course provides advanced construction students with knowledge and skills in plumbing, stair layout, HVAC (Heating, Ventilating, and Air Conditioning), and exterior applications. Through hands-on projects, students develop technical skills that are used throughout the construction industry. The appropriate use of technology and industry-standard equipment is an integral part of this course. Upon successful completion of this course, students will have acquired entry-level skills for employment and be prepared for postsecondary education.

TECHNICAL STANDARDS:

CONTENT STANDARD 5.0 : UNDERSTAND AND UTILIZE FRAMING SYSTEMS

Performance Standard 5.4 : Identify and Install Basic Stair Systems
Performance Indicators : 5.4.1-5.4.8

CONTENT STANDARD 6.0 : UTILIZE EXTERIOR FINISH APPLICATIONS

Performance Standard 6.1 : Demonstrate Roofing Applications
Performance Indicators : 6.1.1-6.1.6
Performance Standard 6.2 : Demonstrate Exterior Finishing Applications
Performance Indicators : 6.2.1-6.2.11

CONTENT STANDARD 8.0 : APPLY PLUMBING PRINCIPLES

Performance Standard 8.1 : Identify Drain, Waste, and Vent (DWV) Systems
Performance Indicators : 8.1.1-8.1.5
Performance Standard 8.2 : Identify and Utilize Plastic Pipe and Fittings
Performance Indicators : 8.2.1-8.2.9
Performance Standard 8.3 : Identify and Utilize Copper Pipe and Fittings
Performance Indicators : 8.3.1-8.3.7

CONTENT STANDARD 9.0 : IDENTIFY HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) PRINCIPLES

Performance Standard 9.1 : Explore HVAC Opportunities and Techniques
Performance Indicators : 9.1.1-9.1.4

Grading

Semester Grading System: 1st and 2nd Quarter 90% Semester Exam 10%
3rd and 4th Quarter 90% Final Exam 10%

Quarter Grading System: Daily Participation----- 40%
Projects/Assignments/Tests----60%

A-100-90	D-69-60
B-89-80	F-59-0
C-79-70	

- Projects:** Students will be assigned building projects throughout the year.
- Assignments:** Principles taught will be reinforced through lab and classroom assignments.
- Tests:** Tests will be given at the end of most units along with semester and final exams. Students must pass safety test with 100% before being allowed to work in the shop.
- Daily Participation:** Students can earn up to 10 points a day for attendance, class participation, compliance with classroom rules, and completing the daily challenge assignment when given. Any absent for any reason (excused or unexcused) will result in the loss of participation points. Only students with excused absents will be allowed to make up participation points. Loss of participation points due to any other reason cannot be made up.
- Make up work:** All class work must be turned in on time. Work turned in after the designated due date will receive a one letter grade reduction. It is the student's responsibility to initiate contact with the teacher when assignments are missed. Students must complete and turn in all make-up work within three (3) instructional days following an absence. Daily participation point loss due to an excused absents can be made up by writing a one page paper on a construction topic for each day missed.
- Class Policies:** **Cell phones, I-pod or any other nuisances items will not be allowed in the classroom.** If **seen or heard** they will immediately be confiscated and taken to the Dean's office.
- No horse playing, running, or throwing items in class or shop.
- All Students must wear safety glasses in lab at all times.
- All shop safety rules must be followed at all times.
- Tardy Policy:** This class will follow the school mandated tardy policy. A student is considered tardy if he/she is not in the proper seat when the bell rings.
- Discipline Policy:** 1st Offense – Warning/Loss of participation points
2nd Offense- Referral
- Class fee:** The fee for this elective is \$30.00. Students must pay the fee at the school bank and show payment receipt to the instructor. Failure to pay the fee will result in

the student not participating in lab activities. In cases of financial need, payment plans can be arranged. Monies collected from fees will go toward the purchase of supplies and material. In cases that merit fee reimbursement (for example: moving, dropping, transferring classes etc.), it is the student's responsibility to collect reimbursement monies through the school banker.

To Begin Shop Work Students Must Have The Following:

- *Permission Slip
- *\$30.00 Shop Fee
- *Combination Lock
- *100% On Safety Test

Typical Daily Class Procedure:

Class =1hr 20min

- | | |
|-------------------|--------------------------------------|
| 10min (Classroom) | *Daily Challenge
*Roll
*Lesson |
| 50min (Lab) | *Lab Work |
| 10min (Lab) | *Clean Up |
| 10min (Classroom) | *Review |

Safety:

Safety is the top priority in this course. There will be no tolerance of unsafe acts or conditions. Fingers, eyes, toes, and other body parts cannot be replaced. You will be taught to safely use the equipment. You will only be allowed to use the equipment after you have demonstrated proficiency in its use. It will always be your responsibility to make sure you do so in a safe manner. If you are even slightly unsure of the proper way to use a certain piece of equipment or of how to do a specific task, ask the instructor.



CLARK COUNTY SCHOOL DISTRICT
STUDENT/PARENT ACKNOWLEDGEMENT/SAFETY CONTRACT:

The parent/guardian and student have read and agree to the Building Construction Technology course expectation and procedures.

The student fully understands the importance of behaving safely and promises to abide by all the safety rules and practices set forth by the instructor while in the Construction Class.

- ◆ The student understands that he/she is responsible for his/her own safety and for the safety of those around him/her.
- ◆ The student agrees to conduct himself/herself in a safe and responsible manner.
- ◆ The student will never use or perform a machine operation before the instructor has demonstrated it and authorized him/her to do so or if the student is still not absolutely certain as how to safely perform the operation.
- ◆ The student will never perform an unguarded or “special set-up” without prior approval from the instructor.
- ◆ When operating any machine the student will always keep fingers outside of the “margin of safety.”
- ◆ The student will report all accidents and potentially dangerous situations to the instructor.
- ◆ The student agrees that in the event he/she exhibits unsafe work practices including but not limited to: horseplay, unauthorized use of equipment, carelessness, using machines with the guards removed, and/or not wearing eye protection, he/she should and will be disciplined.
- ◆ The student further agrees that he/she should be removed from the class when the instructor has determined that his/her behavior is such that the safety of the class is in jeopardy.

Signed: _____
(Student)

Date: _____

Signed: _____
(Parent or Guardian)

Date: _____