



Department of Teaching & Learning
Parent/Student Course Information

Masonry
(VO8513)
Three Credits, One Year
Grades 10 - 12

Counselors are available to assist parents and students with course selections and career planning. Parents may arrange to meet with the counselor by calling the school's guidance department.

COURSE DESCRIPTION

In this program students work with brick and block on full-sized projects in the shop, on campus and construction sites. Students learn to use, care for, and safely handle the tools, machinery, equipment and materials commonly found in the masonry trade. Activities involve building walls, columns and planning and building a variety of structures.

CERTIFICATION

Skills Connect Assessment: Masonry

STUDENT ORGANIZATION

SkillsUSA is a co-curricular organization for all students enrolled in trade and industrial education programs. SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. SkillsUSA helps students excel by providing educational programs, events and competitions that support career and technical education (CTE) in the nation's classrooms. Students are highly encouraged to participate.

PREREQUISITE

Construction Technology

OPTIONS FOR NEXT COURSE

None

REQUIRED STUDENT TEXTBOOK

None

COMPETENCIES FOR MASONRY

Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills

- 1 Demonstrate positive work ethic.
- 2 Demonstrate integrity.
- 3 Demonstrate teamwork skills.
- 4 Demonstrate self-representation skills.
- 5 Demonstrate diversity awareness.
- 6 Demonstrate conflict-resolution skills.
- 7 Demonstrate creativity and resourcefulness.

Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills

- 8 Demonstrate effective speaking and listening skills.
- 9 Demonstrate effective reading and writing skills.
- 10 Demonstrate critical-thinking and problem-solving skills.
- 11 Demonstrate healthy behaviors and safety skills.
- 12 Demonstrate an understanding of workplace organizations, systems, and climates.
- 13 Demonstrate lifelong-learning skills.
- 14 Demonstrate job-acquisition and advancement skills.
- 15 Demonstrate time-, task-, and resource-management skills.
- 16 Demonstrate job-specific mathematics skills.
- 17 Demonstrate customer-service skills.

Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills

- 18 Demonstrate proficiency with technologies common to a specific occupation.
- 19 Demonstrate information technology skills.
- 20 Demonstrate an understanding of Internet use and security issues.
- 21 Demonstrate telecommunications skills.

Examining All Aspects of an Industry

- 22 Examine aspects of planning within an industry/organization.
- 23 Examine aspects of management within an industry/organization.
- 24 Examine aspects of financial responsibility within an industry/organization.
- 25 Examine technical and production skills required of workers within an industry/organization.
- 26 Examine principles of technology that underlie an industry/organization.
- 27 Examine labor issues related to an industry/organization.
- 28 Examine community issues related to an industry/organization.
- 29 Examine health, safety, and environmental issues related to an industry/organization.

Addressing Elements of Student Life

- 30 Identify the purposes and goals of the student organization.
- 31 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.
- 32 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.
- 33 Identify Internet safety issues and procedures for complying with acceptable use standards.

Applying Basic Construction Safety Standards (Core Safety)

- 34 Comply with federal, state, and local safety legal requirements, including OSHA, VOSHA, and EPA.
- 35 Identify PPE (personal protective equipment) requirements.
- 36 Inspect and maintain a safe working environment.

- 37 Explain safe working practices around electrical hazards.
- 38 Identify emergency first-aid procedures.
- 39 Identify the types of fires and the methods used to extinguish them.
- 40 Inspect course-specific hand and power tools to visually identify defects.
- 41 Demonstrate safe operation of course-specific hand and power tools.
- 42 Demonstrate lifting and carrying techniques.
- 43 Demonstrate safe laddering techniques.
- 44 Demonstrate safe tubular steel scaffolding techniques.
- 45 Report injuries.
- 46 Report personal, environmental, and equipment safety violations to the appropriate authority.
- 47 Earn the OSHA 10 card.
- 48 Pass safety exam.

Laying Brick Positions and Bonds

- 49 Lay an American/common bond pattern.
- 50 Lay a stack bond pattern.
- 51 Lay an English bond pattern.
- 52 Lay a Flemish bond pattern.

Laying Concrete Masonry Units

- 53 Build a block jamb.
- 54 Build a block corner.
- 55 Identify types and sizes of block.

Identifying and Mixing Masonry Mortars

- 56 Differentiate among types of masonry mortars.
- 57 Select masonry mortar appropriate for a job.

Performing Residential Masonry

- 58 Lay out a masonry foundation.
- 59 Construct block piers.
- 60 Install veneer ties.
- 61 Build a window sill.
- 62 Clean brick walls.

Constructing Commercial Masonry

- 63 Identify wall systems.
- 64 Install wire reinforcements.
- 65 Build a composite/cavity wall system.
- 66 Set lintels.
- 67 Identify the procedures for forming and building a bonded beam.
- 68 Lay split-face block.
- 69 Lay fluted block.
- 70 Identify control and expansion joints.

Preparing the Building Site

- 71 Estimate amounts of materials needed for a job.
- 72 Locate and square corners.
- 73 Read blueprints and plans.

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For further information please call (757) 263-1070.

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