

Implementation Date
Fall 2008

PROGRAM CONCENTRATION:

**Architecture, Construction,
Communications & Transportation**

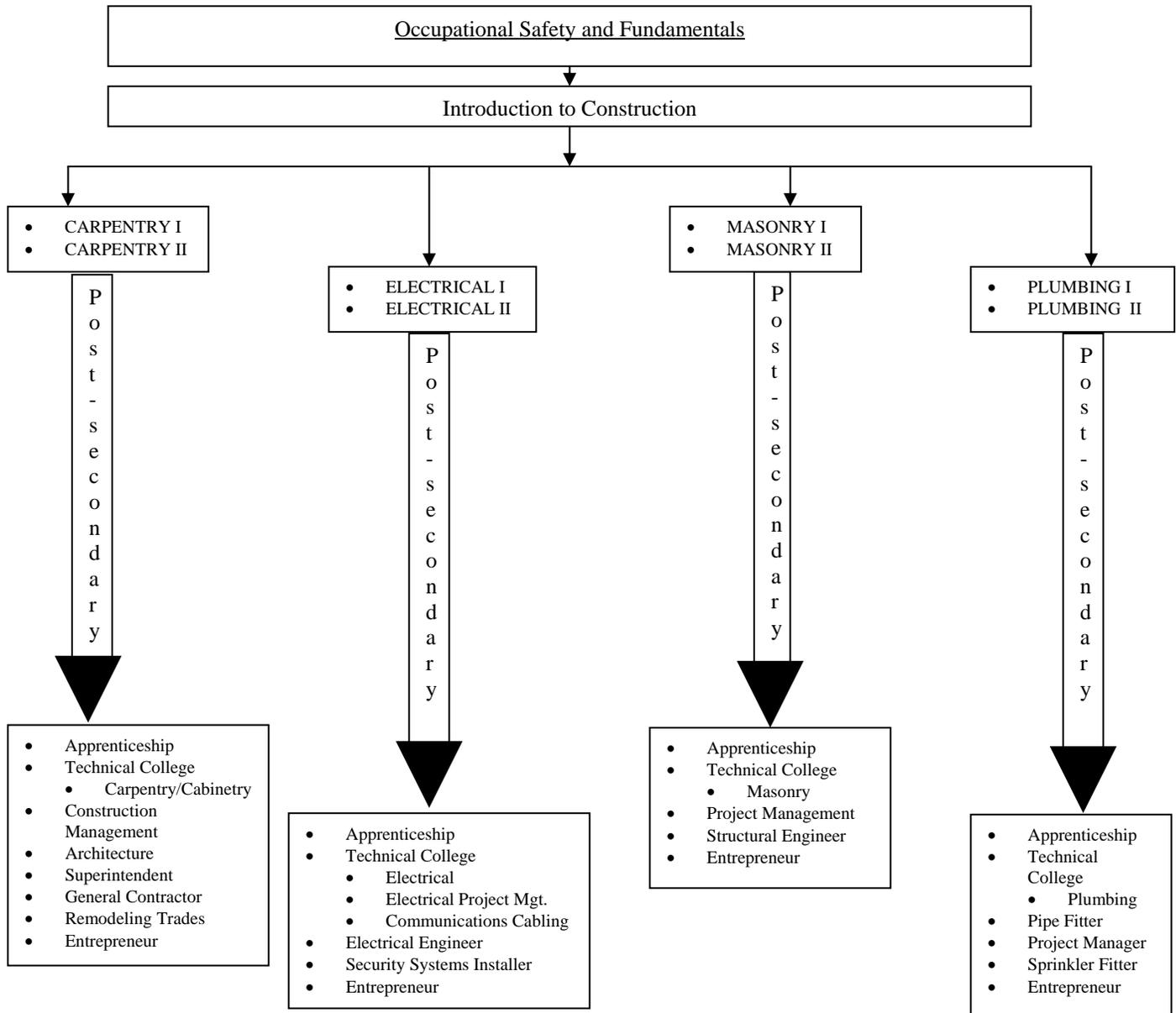
CAREER PATHWAY:

Construction

This Pathway is designed to prepare a student with foundational knowledge and skills for a construction career in one of four possible construction crafts. It also is a good pathway for a student to prepare for a variety of opportunities in addition to the craft areas, such as Architecture, Construction Engineering and Construction Management.

As the student progresses through the pathway, they are given the opportunity to explore four construction craft areas on an introductory level. Once they have completed the foundational and introductory levels they are then given the option to “major” in at least one of four craft areas. These areas are Carpentry, Masonry, Electrical, and Plumbing. Upon successful completion of four units within this Pathway, in an Industry Accredited Program, the student will earn at least two industry credentials with the possibility of others.

The Construction Career Pathway Map



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PROGRAM CONCENTRATION: Architecture, Construction,
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CAREER PATHWAY: Construction
COURSE TITLE: Carpentry II

This course is preceded by Carpentry I and is the fourth of four courses that provides the student a solid foundation in carpentry skills and knowledge. It is the final step in gaining a Level One Industry Certification in Carpentry.

This course provides the knowledge of various kinds of roof systems. It provides knowledge and skills for layout and cutting of the various types of roof rafters. It provides knowledge and skills for installing exterior doors, windows, and skylights. It also provides the student with knowledge and skills to layout, cut, and install various types of stairs and the code requirements needed to properly do so.

ACT-C2-1. Students will know and understand proper and necessary carpentry tasks that enable a team to construct ceiling and roof systems.

- a. Measure, lay out, and cut all types of ceiling framing members.
- b. Measure, layout out, and cut all types of roof framing members.
- c. Demonstrate a basic knowledge of truss systems.

ACADEMIC STANDARDS:

MC4P1. Students will solve problems (using appropriate technology).

SSCG18. The student will demonstrate knowledge of the powers of Georgia's state and local governments.

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

SEV4. Students will understand and describe availability, allocation and conservation of energy and other resources.

SEV5. Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.

ACT-C2-2. Students will know and understand the proper and necessary carpentry tasks that enable a team to install doors, windows, and stairs.

- a. Demonstrate knowledge of the installation of door and window jambs.
- b. Install doors and windows and associated components.
- c. Lay out, cut, and install stairs.

ACADEMIC STANDARDS:

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MC4P1. Students will solve problems (using appropriate technology).

MM2G1. Students will identify and use special right triangles.

MM2G3. Students will understand the properties of circles.

MM2P4. Students will make connections among mathematical ideas and to other disciplines.

SSCG18. The student will demonstrate knowledge of the powers of Georgia's state and local governments.

ELA9LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ACT-C2-3. Students will know and understand installation and application procedures for exterior finishes.

- a. Demonstrate knowledge of products and materials used in exterior finishes.
- b. Measure, lay out, cut, and install exterior finishes.

ACADEMIC STANDARDS:

MC4P1. Students will solve problems (using appropriate technology).

MM2P4. Students will make connections among mathematical ideas and to other disciplines.

SSCG15. The student will explain the functions of the departments and agencies of the federal bureaucracy.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards

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were identified and validated by a national advisory group of employers, secondary and post secondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.