

Implementation Date  
Fall 2008

**PROGRAM CONCENTRATION:**

**Architecture, Construction,  
Communications & Transportation**

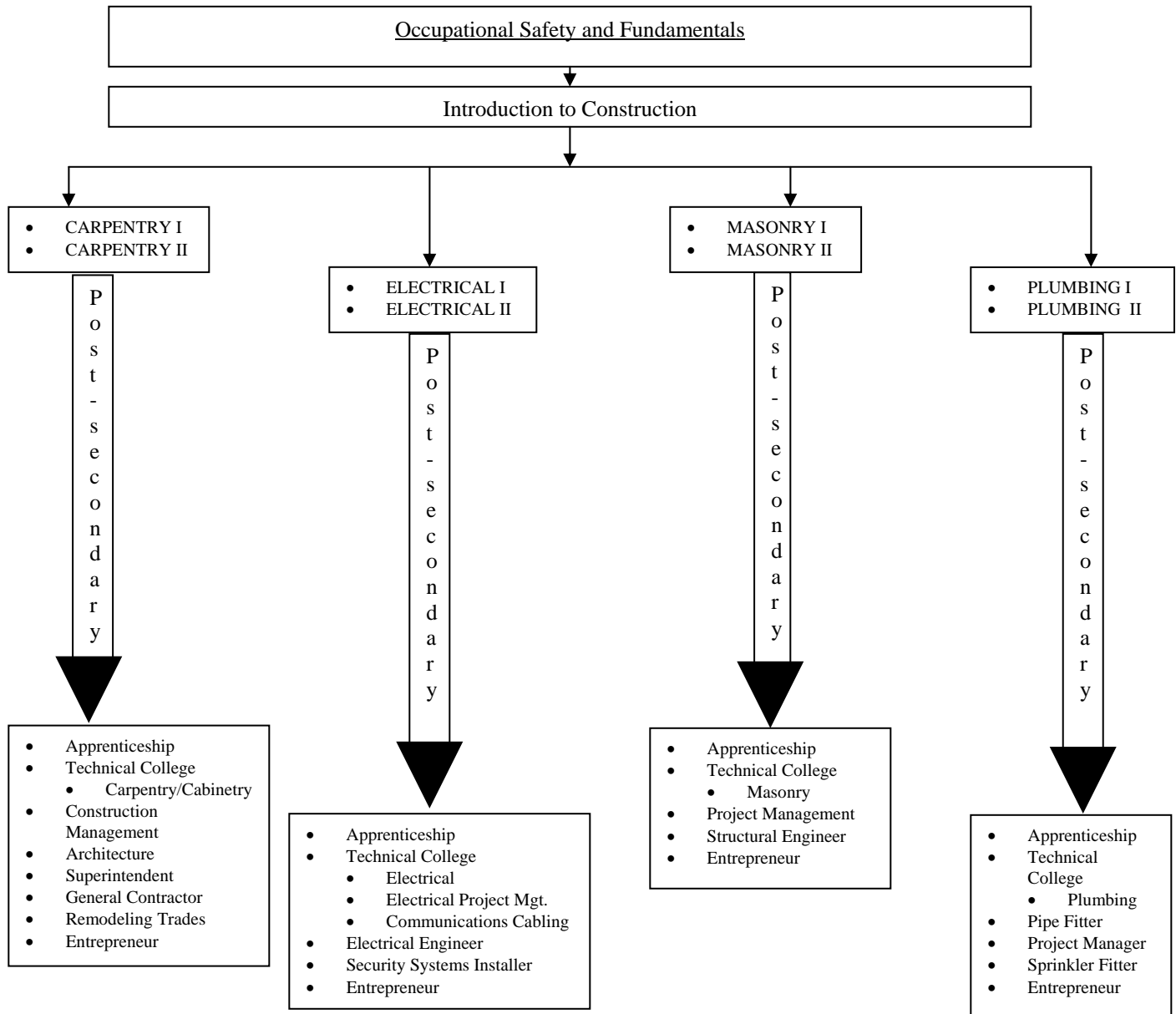
**CAREER PATHWAY:**

**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:** Masonry II

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

This course provides the basic knowledge needed for all types of concrete and masonry units and their applications. It provides additional skills needed for cutting, laying, and finishing masonry units. It provides the knowledge and skills to use ties and reinforcing materials while installing masonry units. It also provides knowledge and skills related to the processes used in placing masonry units.

**ACT-M2-1. Students will understand materials and processes used in masonry construction will lay brick and block.**

- a. Demonstrate setting up a wall.
- b. Lay a dry bond.
- c. Spread furrowed bed joint and butter masonry units.
- d. Describe different types of masonry bonds.
- e. Cut brick and block accurately.
- f. Lay masonry units in a true course.
- g. Design and build a pyramid wall, corner using 3/4/5 rule and a column.

**ACADEMIC STANDARDS:**

*MC1A1. Students will explore and interpret the characteristics of functions, using graphs, tables, and simple algebraic techniques.*

*MC1G1. Students will investigate properties of geometric figures in the coordinate plane.*

*MC1P1. Students will solve problems (using appropriate technology).*

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

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

**ACT-M2-2. Students will understand the proper techniques and will complete concrete flatwork.**

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- a. Demonstrate an understanding of the requirements for construction of various types of residential foundations.
- b. Demonstrate the knowledge of the layout and construction of steps, patios, and decks made from masonry units.

### **ACADEMIC STANDARDS:**

*MM1A3. Students will solve simple equations.*

*MM1G1. Students will investigate properties of geometric figures in the coordinate plane.*

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

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

### **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 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.

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**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.