PROGRAM: **Advanced Construction Technologies**

PROGRAM CIP CODE: **46.0400.20**

DESCRIPTION: The **Advanced Construction Technologies** program is designed to prepare individuals to apply technical knowledge and skills in the building industry which include units of instruction in carpentry, electrical, masonry block/brick laying, concrete finishing, plumbing, floor systems, wall and ceiling framing, roof framing, site layout and interior/exterior finish applications. The program is designed and delivered as a coherent sequence of experiences using technical instruction, academic foundations, experiential learning, work-based learning opportunities and leadership and personal development through the Career and Technical Student Organization, SkillsUSA.

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Career Preparation The following describes the recommended courses developed from industry-validated skills necessary for initial employment or continued related education.

46.0400.10 **Construction Technologies Core Curriculum:** This foundation course will prepare students to use a wide variety of construction tools and equipment, demonstrate and maintain a safe work environment in a lab. The student will develop an understanding of construction math, financial operations, reading blueprints and basic construction techniques. The student will develop skills in oral and written communication as they relate to the construction industry. This course is designed to help students develop an enhanced understanding of teamwork, employability skills and career opportunities in the construction field.

-and-

46.0400.20 **Advanced Construction Technologies:** This course prepares the individual to apply and demonstrate advanced technical knowledge and skills in various types of construction. This lab-based course will provide the students an opportunity to participate in the planning, design and completion of project based activities. i.e. electrical, masonry block/brick laying, concrete finishing, HVAC, plumbing, floor systems, wall and ceiling framing, site layout, interior and exterior finish and roof applications.

And program may elect to add:

46.0400.75 **Construction Technologies - Internship:** This course provides CTE students an opportunity to engage in learning through participation in a structured work experience that can either be paid or unpaid and does not necessarily require classroom instruction that involves the application of previously developed Construction Technologies knowledge and skills.

-or-

46.0400.80 **Construction Technologies - Cooperative Education:** This course utilizes a cooperative education methodology to combine school-based and supervised work-based learning experiences directly related to the standards identified for the Construction Technologies program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE ADVANCED CONSTRUCTION TECHNOLOGIES PROGRAM	
CAREER PREPARATION: The instructor must be CTE certified according to the following table	
Construction Technologies	CERTIFICATES
	Types: PCTI, PCTIEP, SCTI, SCTIEP

Note:

- **Construction Technologies 46.0400.70** may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).
- Teacher/Coordinator **46.0400.75** is not required to have a Cooperative Education Endorsement (CEN).
- Teacher/Coordinator **46.0400.80** is required to have a Cooperative Education Endorsement (CEN).

CERTIFICATE ABBREVIATIONS FOR THE ADVANCED CONSTRUCTION TECHNOLOGIES PROGRAM	
Certificate Types	
PCTI	Provisional Career and Technical Education Industrial Technology
PCTIEP	Provisional Career and Technical Education Industrial and Emerging Technologies
SCTI	Standard Career and Technical Education Industrial Technology
SCTIEP	Standard Career and Technical Education Industrial and Emerging Technologies