


Do you like to design and make things?
Are you comfortable working with machines?



**Manufacturing
CTE Cluster**

Our Career and Technical Education (CTE) Pathways in the Manufacturing CTE Cluster lead to a credential for employment (certificate, diploma, or degree).

Prepare for a career related to production planning and control, maintenance, and manufacturing/process engineering. Check out available CTE Pathways. 

CAREER AND TECHNICAL EDUCATION PATHWAYS FOR HIGH SCHOOL POPULATIONS

Upon completion of a CTE Pathway, students will have earned substantial credit toward an Associate in Applied Science (AAS) degree, and may take courses in the degree during the remainder of their high school experience. All courses in a CTE Pathway are college-credit, but not all courses are transferable.

To assist students who plan to go on to a four-year university, the courses that transfer under the Comprehensive Articulation Agreement between the N.C. Community College System and the University of North Carolina system are marked with **(T)**. High school students who achieve a grade of B or higher and achieve a score of 93 or higher on the standardized Career and Technical Education (CTE) post-assessment test, for certain high school CTE classes, can be provided college credit for CTE pathway courses marked with **(HS)**. To receive articulated credit, the current high school student must be enrolled in a Career and College Promise CTE pathway that contains the articulated course. High school graduates can receive course credit by requesting the articulated course credit within two years of their high school graduation date. Students are encouraged to consult with their academic advisor while at South Piedmont Community College.

NEXT STEPS:

Contact your high school guidance counselor or Career Development Coordinator. They can provide information about eligibility and coordinate the high school and college class schedules. Students may enroll concurrently in two CTE pathways. If you have questions about the CTE pathways listed here, please contact High School Programs at 704-290-5090 or highschoolprograms@spcc.edu.

Classes are offered at our college campuses in Monroe and Polkton and online. Some classes may be offered at your local high school. Classes are organized into pathways and align with the K-12 curriculum and Career and College Ready Standards adopted by the State Board of Education.

The following CTE pathways are available to eligible high school freshmen, sophomores, juniors, and seniors.

INTRODUCTION TO INDUSTRIAL SYSTEMS CERTIFICATE (C50240PA)

Course	Credits	Prerequisites	Semester offered (SPCC Campus)
BPR 115: Electrical/Fluid Power Diagram	2	None	Fall
MAC 111: Machining Technology I (HS)	6	None	Fall
HYD 110: Hydraulics/Pneumatics I	3	None	Spring
WLD 112: Basic Welding Processes (HS)	2	None	Spring
MAC 114: Intro to Metrology	2	None	Fall
MAC 151: Machining Calculations (HS)	2	None	Fall
TOTAL CREDITS	17		

(continued)

CAREER AND TECHNICAL EDUCATION PATHWAYS FOR HIGH SCHOOL POPULATIONS

INDUSTRIAL SYSTEMS ENGINEERING PRE-APPRENTICE CTE PATHWAY CERTIFICATE (C50240PC)

Course	Credits	Prerequisites	Semester offered (SPCC Campus)
BPR 115: Electrical/Fluid Power Diagram	2	None	Fall
ELC 131: Circuit Analysis I and	4	None	Fall
ELC 131A: Circuit Analysis I LAB	1	ELC 131 (co-req)	Fall
HYD 110: Hydraulics/Pneumatics I	3	None	Spring
ISC 112: Industrial Safety	2	None	Spring
ELC 128: Introduction to PLC	3	None	Spring
WLD 112: Basic Welding Processes	2	None	Spring
WBL 110: World of Work	1	Enrollment in a curriculum program	Fall, Spring
TOTAL CREDITS	18		

INTRODUCTION TO WELDING CERTIFICATE (C50420PA)

Course	Credits	Prerequisites	Semester offered (SPCC Campus)
WLD 110: Cutting Processes (HS)	2	None	Fall
WLD 115: SMAW (Stick) Plate (HS)	5	None	Fall
WLD 121: GMAW (MIG) FCAW/Plate (HS)	4	None	Fall
WLD 131: GTAW (TIG) Plate	4	None	Fall
WLD 141: Symbols & Specifications	3	None	Fall
TOTAL CREDITS	18		

BASIC WELDING CERTIFICATE (C50420PB)

Course	Credits	Prerequisites	Semester offered (SPCC Campus)
WLD 110: Cutting Processes (HS)	2	None	Fall
WLD 115: SMAW (Stick) Plate (HS)	5	None	Fall
WLD 121: GMAW (MIG) FCAW/Plate (HS)	4	None	Fall
WLD 141: Symbols & Specifications	3	None	Fall
TOTAL CREDITS	14		

