



## Description

This career major will prepare students to become an Automated Systems Technician. These technicians install and operate robotics and related automation, industrial electricity while learning the fundamentals of manufacturing. Mechatronics is the combination of mechanical engineering, electronic engineering, computer engineering, software engineering, control engineering and systems design engineering in order to manufacture useful products.

## Application

Applicants must complete a Southern Tech Application for Admission. Additional information and applications are available at the Southern Tech campus and online at [www.sotech.edu](http://www.sotech.edu). Enrollment for this career major is open to partnering High Schools (juniors/seniors) and Adults.

## Tuition

High School Student: Free. Adult Student (in-district): \$2.50 per hour; Adult Student (Out-of-District): \$5 per hour; and Adult Student (Out-of-State): \$7.50 per hour. Additional costs may include books, supplies, and miscellaneous fees.

## Financial Aid and Scholarships

Financial aid and scholarships are available for qualifying students.

## Student Organization

SkillsUSA

## Schedule

Adults (Half Time) 8:00-11:00 AM or 12:45-3:45 PM

Adults (Full Time) 8:00-11:00 AM and 12:45-3:45 PM

High School Students: 8:00-11:00 AM or 12:45-3:45 PM

## Program Details

### Mechatronics Fundamentals

Course	Hours
Basics of Electricity	120
Industrial Equipment Safety	45
Electrical Connectors & Hand Tools	30
Electrical Schematic and Blueprint Reading	60
Industrial Electricity	60
Motor Theory & Operation	30

Programmable Controller Interfacing	90
Workforce Staging	30
Electrical Distribution	60
<b>Total</b>	<b>525</b>
<i>Estimated time to complete (Half Time)</i>	<i>1 year</i>

### Mechatronics Advanced

Course	Hours
Basics of Electricity	120
Industrial Equipment Safety	45
Electrical Connectors & Hand Tools	30
Electrical Schematic and Blueprint Reading	60
Industrial Electricity	60
Motor Theory & Operation	30
Programmable Controller Interfacing	90
Workforce Staging	30
Electrical Distribution	60
Fluid Power Theory & Power Transmission Principles	90
Motor Control Wiring	90
Programmable Controller Programming	90
Automated Industrial Systems	90
Principles of Welding	45
Workforce Connection	120
<b>Total</b>	<b>1050</b>
<i>Estimated time to complete (Full Time)</i>	<i>1 year</i>
<i>Estimated time to complete (Half Time)</i>	<i>2 years</i>

## Targeted Certifications and/or Credentials

- Electrical Systems
- Maintenance Operations
- Career Tech (CT) Electronics Assembler
- Electrical Control Systems
- Process Control Systems
- Basic Mechanical Systems
- Basic Hydraulic Systems
- Basic Pneumatic Systems
- Maintenance Welding
- Multimeter – SnapOn – NC3

***Certifications may vary by Program and are subject to change without notice.***

## Employment Options

*The following list is associated with the approved SOC (Standard Occupational Classification) for this program and does not necessarily represent immediate opportunities; additional training may be required for some options listed.*

Automation Technician, Electrical and Instrumentation Technician (E and I Technician), Electronics Technician, Field Service Technician, Instrument Specialist, Instrumentation Technician – Approximate Pay Potential: \$14-41/Hour.