

**Area of Interest:** Industrial Technology & Skilled Trades

**Degree:** Automated Industrial Technology, Associate of Applied Science

**Stackable Certificate 1:** Automated Industrial Technology I

**Stackable Certificate 2:** Automated Industrial Technology II

**College Catalog:** [2024-2025](#)



**Program Location:** Signal Peak Campus

**Program Description:** The Associate in Applied Science (AAS) in Automated Industrial Technology prepares students to troubleshoot, maintain and repair a variety of automated electro-mechanical, product assembly, process control, and product distribution systems that use programmable controls and other methodologies to accomplish system management. These systems include robotic, mechanical, hydraulic, pneumatic, electrical and electronic devices. Through this degree, graduates will gain the skills to define, integrate, install, program, and maintain complex control systems. Additionally, students will gain the communication, problem solving and professional skills needed to be successful in this field. The Automated Industrial Technology courses are designed to prepare students for industry recognized certifications. Certificates of Completion (CCL) in Automated Industrial Technology I and II are also available.

**Contact Information: Advising:** [itst.advisor@centralaz.edu](mailto:itst.advisor@centralaz.edu)

**Area of Interest Website:** [Industrial Technology and Skilled Trades - Central Arizona College \(centralaz.edu\)](#)

### Legend

**Bold Course**=Required Course      Recommended Course (R)      Stackable Certificate (SC)

**AGEC Course list** (Arizona General Education Curriculum) and other degree requirements.

Written Communication ( <b>WC</b> )	Oral Communication ( <b>OC</b> )	Arts/Humanities ( <b>AH</b> )	Social/Behavioral Science ( <b>SB</b> )
Lab Science ( <b>LS</b> )	Mathematics ( <b>M</b> )	Core Course ( <b>CC</b> )	Elective ( <b>E</b> )

**Special Awareness Requirements** for transfer degrees met through courses on the [AGEC Course list](#).

Cultural Awareness (**CU**)       Global/Historical Awareness (**GI/HI**)       Intensive Writing (**IW**)

**Semester 1** New Students-Find your suggested starting point for [English/Reading & Math](#) courses.

		COURSE	CREDITS	SEMESTER/GRADE	NOTES
SC1	CC	<b>AIT100 Industrial Safety</b>	1		
SC1	CC	<b>AIT105 Maintenance Operations</b>	3		
SC1	CC	<b>AIT110 Mechanical Power Transmission Systems</b>	3		
SC1	CC	<b>AIT115 Hydraulic Systems</b>	3		
SC1	CC	<b>AIT120 Pneumatic Systems</b>	3		
SC1	CC	<b>AIT125 DC &amp; AC Components &amp; Circuits</b>	3		
		<b>Semester Credits:</b>	<b>16</b>	<b>Meet with your CAC advisor each semester!</b>	

### Semester 2

		COURSE	CREDITS	SEMESTER/GRADE	NOTES
SC2	CC	<b>AIT205 Power Electronics &amp; Variable Frequency Drives</b>	3		
SC2	CC	<b>AIT210 Programmable Logic Controller Programming &amp; Troubleshooting</b>	3		
SC2	CC	<b>AIT215 Process Control Systems</b>	4		
SC2	CC	<b>AIT225 Industrial Motors &amp; Motor Control</b>	3		
SC2	CC	<b>AIT270 Robotics I</b>	3		
		<b>Semester Credits</b>	<b>16</b>	<b>Research career resources and opportunities!</b>	

Semester 3					
		COURSE	CREDITS	SEMESTER/GRADE	NOTES
R	WC	ENG121 Applied Technical Writing	3		
	AH	Select an AGECEC Arts and Humanities course	3		
	M	MAT106 Technical Math I or higher	3		
	CC	<b>AIT275 Robotics II</b>	3		
	CC	<b>MET289 Advanced Technology Capstone</b>	3		
<b>Semester Credits:</b>			<b>15</b>	<b>Apply for graduation and attend career events!</b>	

Semester 4					
		COURSE	CREDITS	SEMESTER/GRADE	NOTES
	OC	COM100 Fundamentals of Human Communication or higher	3		
	SB	Select an AGECEC Social & Behavioral Science course	3		
	LS	Select an AGECEC Biological & Physical Sciences course	4		
R	CC	WLD221 Gas Tungsten Arc Welding	3		
<b>Semester Credits:</b>			<b>13</b>	<b>Finish strong-don't get distracted before finals!</b>	
<b>Total Degree Credits:</b>			<b>60</b>		
<b>Total Certificate I Credits:</b>			<b>16</b>		
<b>Total Certificate II Credits:</b>			<b>16</b>		

Arizona Resident Tuition for 2024-2025 is \$75 per credit hour, see [Paying for College](#). Financial aid may be available.

### Career Information

**CAC Career Center:** [centralaz.edu/career](http://centralaz.edu/career) FREE CAC career resources and assistance.

**O\*NET OnLine:** Visit [onetonline.org](http://onetonline.org) and search for:

**Occupations in Automated Industrial Technology, including:**

- Education needed for specific occupations
- Occupation tasks, knowledge, skills and abilities
- Salary/wages for specific occupations (\$)

### Transfer Information

**CAC University Transfer Center:** [centralaz.edu/transfer](http://centralaz.edu/transfer) FREE CAC transfer resources and assistance.

**Note:** Use this Program MAP as a guide to choose courses with your advisor and track progress towards milestones and completion of program. Work with an advisor to customize your plan to align with your specific career and/or transfer goals.

**Part-Time Students:** Plans can be modified to fit the need of part-time students by adding more semesters.

<b>Student Name:</b>	<b>Advisor Name:</b>
<b>Student ID Number:</b> 880	<b>Date:</b>