

# Industrial Sciences & Technology (Electrical & Instrumentation Technology)

Associate of Applied Science (A.A.S.)

## Transfer Options

- Arkansas State University-Jonesboro
  - BAS Organizational Supervision
- Oklahoma State University Institute of Technology
  - Bachelor of Technology Applied Technical Leadership
- University of Arkansas-Fort Smith
  - Bachelor of Applied Science

Electrical Instrumentation Technology is an emphasis area under the Associate of Applied Science in Industrial Sciences and Technology. This program generally prepares individuals to apply technical knowledge and skills to operate, maintain, install and repair electrical, electronic and instrumentation controls in an industrial environment. Electrical and instrumentation control technicians work in any of a number of different industries such as, chemical, petrochemical, power generation, manufacturing, and construction. Students can complete a technical certificate and certificate of proficiency in Electrical & Instrumentation Technology. The courses in both certificates can be applied toward completion of the Associate of Applied Science Degree. Students completing this program will have skills to obtain employment as an electrical or instrumentation apprentice for local industry and/or contractors.

## Mission

The mission of the Industrial Sciences & Technology program is to provide quality education and training that enhance employment opportunities and increase the personal development of students including opportunity to complete a four-year degree.

## Program Goal

The Associate of Applied Science in Industrial Sciences & Technology will provide students the knowledge and skills necessary to obtain entry level employment in the applicable field of study and the first two years of a university program.

## Program Learning Outcomes (PLOs)

- PLO 1. An ability to use the techniques, skills, and modern tools necessary for the appropriate field of study.
- PLO 2. An ability to apply knowledge of mathematics, science, and engineering.
- PLO 3. An ability to identify, formulate, and solve problems.
- PLO 4. An understanding of professional and ethical responsibility.
- PLO 5. An ability to communicate effectively.



**DEGREE PLAN  
2021-2022**

## Developmental Coursework

Course Number	Course Title	Required	Enrolled	Completed
ENGL 0121	Composition I Lab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Semester I (14 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
<sup>1</sup> EE 1003	N/A	Introduction to Basic Electricity	<input type="checkbox"/>	<input type="checkbox"/>
EN 1003	N/A	Introduction to Engineering	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1,2</sup> IMEI 1004	N/A	NCCER E&I Level I	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> MATH 1063	MATH 1113	Math Reasoning	<input type="checkbox"/>	<input type="checkbox"/>
GSTD 1021	N/A	Student Success I	<input type="checkbox"/>	<input type="checkbox"/>

## Semester II (17 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
MD 1113	N/A	Motor Controls [P3]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> ENGL 1113	ENGL 1013	Composition I [P1]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1,2</sup> IMEI 1014	N/A	NCCER E&I Level II [P4]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> MD 1073	N/A	NCCER	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> MIS 1003	CPSI 1003	Introduction to Computers	<input type="checkbox"/>	<input type="checkbox"/>
GSTD 1031	N/A	Student Success II	<input type="checkbox"/>	<input type="checkbox"/>

## Semester III (15 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
CO 2213	ENGL 2023	Technical Writing [P2]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> EE 1323	N/A	DC/AC Circuit Analysis for Engineering [P3]	<input type="checkbox"/>	<input type="checkbox"/>
EM 2924	N/A	Programmable Logic Controller 1	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1,2</sup> IMEI 2004	N/A	NCCER E&I Level III [P5]	<input type="checkbox"/>	<input type="checkbox"/>
GSTD 1041	N/A	Student Success III	<input type="checkbox"/>	<input type="checkbox"/>

## Semester IV (16 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
CE 2403	N/A	Internship	<input type="checkbox"/>	<input type="checkbox"/>
EM 2213	N/A	Industrial Electricity [P3]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1,2</sup> IMEI 2014	N/A	NCCER E&I Level IV [P6]	<input type="checkbox"/>	<input type="checkbox"/>
MD 2603	N/A	Industrial Safety	<input type="checkbox"/>	<input type="checkbox"/>

Choose three (3) hours from these courses:

CJ 1003	CRJU 1023	<input type="checkbox"/> Introduction to Criminal Justice <input type="checkbox"/> ECON [P7], GEOG, HIST, PSCI, PSYC, or SOC prefix	<input type="checkbox"/>	<input type="checkbox"/>
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**Total Credit Hours: 62**

<sup>1</sup>Indicates Technical Certificate in **Electrical & Instrumentation Technology (34 hours)**.

<sup>2</sup>Indicates Certificate of Proficiency in **Electrical & Instrumentation Technology (16 hours)**.

## PREREQUISITES

P1	Refer to the SAU Tech Placement Plan.
P2	ENGL 1113-Composition I.
P3	EE 1003-Intro to Basic Electricity or HVAC 1023-Fundamentals of Electricity.
P4	IMEI 1004-NCCER E&I Level I.
P5	IMEI 1014-NCCER E&I Level II.
P6	IMEI 2004-NCCER E&I Level III.
P7	MATH 1023-College Algebra or MATH 1063-Math Reasoning.

### **General Information**

- Developmental coursework may be required in addition to the courses required for this degree and/or certificate(s).
- A [P] indicates that a prerequisite is required before the course can be taken. Refer to the prerequisites table listed below the degree plan or the course description in the College Catalog to determine the prerequisite.

### **General Requirements**

- This degree requires successful completion of **62** credit hours.
- All degree-seeking students are required to take Student Success.
- A minimum 2.00 cumulative grade point average is required for graduation.
- Satisfaction of all financial obligations due to the college is required for graduation.

### **Residency Requirement**

The student is required to complete a minimum of 15 semester hours in residence at SAU Tech for associate degrees and technical certificates and half of the credit hours required for certificates of proficiency as well as complete all other graduation requirements. Students who wish to pursue additional degrees must complete a minimum of 15 credit hours of difference between the degrees.

### **ACTS Course Numbers**

The Arkansas Course Transfer System (ACTS) contains information about the transferability of courses within Arkansas public colleges and universities. Students are guaranteed the transfer of applicable credits and equitable treatment in the application of credits for admissions and degree requirements. Go to <http://acts.adhe.edu> for more information.