# **Industrial Sciences & Technology**

Associate of Applied Science (A.A.S.) (Emphasis: Electrical Technology)

# **Transfer Options**

- Arkansas State University-Jonesboro
  O BAS Organizational Supervision
- University of Arkansas-Fort Smith
- Bachelor of Applied Science

Electrical 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, and repair electrical and electronic equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment. Students can complete a Technical Certificate and Certificate of Proficiency in Electrical 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 apprentice for local industry and/or contractor.

#### 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 Goals**

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 Outcomes**

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

# **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 60 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.



# **Developmental Coursework**

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Course Number	Course Title		
CO0143	Introduction to Language Arts		
CO0243	Writing Workshop		
MATH0133	Transitional Math I		
MATH0233	Transitional Math II		

#### Semester I (16 hours)

Course Number	ACTS#	Course Title
<sup>1</sup> EE1003	N/A	Introduction to Basic Electricity
<sup>1</sup> MD1033	N/A	Basic Machine Tools
<sup>1</sup> MD1073	N/A	NCCER
<sup>1,2</sup> MD1113	N/A	Motor Controls
<sup>1,2</sup> MD2603	N/A	Industrial Safety
GSTD1021	N/A	Student Success I

## Semester II (16 hours)

ACTS#	Course Title			
ENGL1013	Composition I [P1]			
N/A	Digital Logic			
MATH1103	College Math [P1]			
N/A	Basic Blueprint Reading			
CPSI1003	Introduction to Computers			
N/A	Student Success II			
	ACTS# ENGL1013 N/A MATH1103 N/A CPSI1003 N/A			

#### Semester III (13 hours)

Course Number	ACTS#	Course Title		
CO2213	ENGL2023	Technical Writing [P2]		
<sup>2</sup> EE1323	N/A	DC/AC Circuit Analysis for Engineering		
<sup>2</sup> EM2924	N/A	Programmable Logic Controller 1		
MD1052	N/A	Intro to Preventive Maintenance		
GSTD1041	N/A	Student Success III		

#### Semester IV (15 hours)

Course Number	ACTS#	Course Title	
CE2403	N/A	Internship	
<sup>2</sup> EM2213	N/A	Industrial Electricity	
CJ1003	CRJU1023	Introduction to Criminal Justice or	
		ECON(Economics), GEOG, HIST, PSCI, PSYC, or SOC prefix	
Choose six (6) hours from these courses:			
EN1003	N/A	Introduction to Engineering	
EN2043	N/A	Robotic Applications	
MD1003	N/A	Computer Integrated Manufacturing	

<sup>1</sup>Indicates Technical Certificate in **Electrical Technology (30 hours)**. <sup>2</sup>Indicates Certificate of Proficiency in **Electrical Technology (13 hours)**.

#### PREREQUISITES

P1	Refer to the SAU Tech Placement Plan.
P2	ENGL1113-Composition I

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 <u>http://acts.adhe.edu</u> for more information.