

# Industrial Sciences & Technology (Mechanical Maintenance)

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
- Southern Arkansas University
  - BS Engineering Physics-Engineering Technology Option
- University of Arkansas-Fort Smith
  - Bachelor of Applied Science

Graduates from this program are prepared for employment in general maintenance in a plant or industrial facility. The Industrial Technologies program is a known leader in training students to meet industry needs. The program is strongly supported by the companies in the Highland Industrial Park. Located inside the Park, SAU Tech has the ability to work directly with plant managers providing employee training and identifying employment needs. In doing this, SAU Tech has been strongly encouraged by Lockheed Martin Missiles & Fire Control Corporation, General Dynamics Corporation, Aerojet Rocketdyne and others to provide quality mechanical maintenance training to current employees and to seek out students for employment in the manufacturing industry.

## 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

- 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  
2020-2021

## Developmental Coursework

Course Number	Course Title
ENGL0121	Composition I Lab
MATH0121	College Algebra Lab
MATH0131	Mathematical Reasoning Lab

## 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	Machine Tools
<sup>1,3</sup> MD1073	N/A	NCCER
<sup>1,2</sup> MD1303	N/A	Basic Welding
<sup>1</sup> MD2603	N/A	Industrial Safety
GSTD1021	N/A	Student Success I

## Semester II (16 hours)

Course Number	ACTS#	Course Title
<sup>1</sup> ENGL1113	ENGL1013	Composition I [P1]
<sup>1,2</sup> MD1323	N/A	Intermediate Welding
<sup>1</sup> MD1403	N/A	Basic Blueprint Reading
<sup>1</sup> MD2003	N/A	Millwright Level I
<sup>1</sup> MIS1003	CPSI1003	Introduction to Computers
GSTD1031	N/A	Student Success II

## Semester III (16 hours)

Course Number	ACTS#	Course Title
EM2924	N/A	Programmable Logic Controller 1
<sup>3</sup> MD1052	N/A	Intro to Preventive Maintenance
MD2013	N/A	Millwright Level II [P3]
GSTD1041	N/A	Student Success III

Choose three (3) hours from these courses:

CO2213	ENGL2023	Technical Writing [P2]
ENGL1123*	ENGL1023	Composition II [P2]

Choose three (3) hours from these courses:

MATH1023*	MATH1103	College Algebra [P1]
MATH1063	MATH1113	Mathematical Reasoning [P1]

\*Students wishing to transfer course work in this degree to Southern Arkansas University for the BS in Engineering Physics-Industrial Technology Option must take Composition II and College Algebra.

## Semester IV (15 hours)

Course Number	ACTS#	Course Title
CE2403	N/A	Internship
<sup>2</sup> MD1343	N/A	Advanced Welding
MD2023	N/A	Millwright Level III [P4]
<sup>3</sup> MD2403	N/A	Fluidics
CJ1003	CRJU1023	Introduction to Criminal Justice or ECON(Economics), GEOG, HIST, PSCI, PSYC, or SOC prefix

Total Credit Hours: 63

<sup>1</sup>Indicates Technical Certificate in **Mechanical Maintenance (30 hours)**.

<sup>2</sup>Indicates Certificate of Proficiency in **Welding Technology (9 hours)**.

<sup>3</sup>Indicates Certificate of Proficiency in **Mechanical Maintenance (8 hours)**.

## PREREQUISITES

P1	Refer to the SAU Tech Placement Plan.
P2	ENGL1113-Composition I
P3	MD2003-Millwright Level I
P4	MD2013-Millwright Level II

### **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 63 credit hours.
- All degree-seeking students are required to take Student Success.
- A minimum 2.00 cumulative grade point average 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.