

# Industrial Sciences & Technology (Nondestructive Testing)

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

Nondestructive Testing (NDT) is an emphasis area under the Associate of Applied Science in Industrial Sciences and Technology.

Nondestructive testing is testing that does not destroy the test object. NDT is vital for constructing and maintaining all types of components and structures. NDT students develop the knowledge and skills required to perform sophisticated testing techniques such as eddy current, x-ray, liquid dye penetrant, magnetic particle, and ultrasonic testing that are currently required in many different industry fields.

## 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 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 (16 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
<sup>1</sup> ENGL 1113	ENGL 1013	Composition I [P1]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> MD 1073	N/A	NCCER	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> MD 2603	N/A	Industrial Safety	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> MIS 1003	CPSI 1003	Introduction to Computers	<input type="checkbox"/>	<input type="checkbox"/>
GSTD 1021	N/A	Student Success I	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1,2</sup> NDT 1003	NA	Radiation Safety	<input type="checkbox"/>	<input type="checkbox"/>

## Semester II (16 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
CO 2213	ENGL 2023	Technical Writing [P2]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> MATH 1063	MATH 1113	Math Reasoning	<input type="checkbox"/>	<input type="checkbox"/>
MD 1403	N/A	Basic Blueprint Reading	<input type="checkbox"/>	<input type="checkbox"/>
GSTD1 031	N/A	Student Success II	<input type="checkbox"/>	<input type="checkbox"/>
EE 1003	NA	Introduction to Basic Electricity	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1,2</sup> NDT 1013	NA	Radiographic Testing Level I [P4]	<input type="checkbox"/>	<input type="checkbox"/>

## Semester III (16 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
EM 2924	N/A	Programmable Logic Controller 1	<input type="checkbox"/>	<input type="checkbox"/>
EN 1003	NA	Introduction Engineering	<input type="checkbox"/>	<input type="checkbox"/>
MD 1052	N/A	Intro to Preventive Maintenance	<input type="checkbox"/>	<input type="checkbox"/>
GSTD 1041	N/A	Student Success III	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1,2</sup> NDT 2013	NA	Radiographic Testing Level II [P3]	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> NDT2033	NA	Ultrasonic Testing I [P4]	<input type="checkbox"/>	<input type="checkbox"/>

## Semester IV (12 hours)

Course Number	ACTS#	Course Title	Enrolled	Completed
CE 2403	N/A	Internship	<input type="checkbox"/>	<input type="checkbox"/>
EN 2043	NA	Robotic Applications	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> NDT 2023	NA	Magnetic Particle/Liquid Penetrant Testing [P4]	<input type="checkbox"/>	<input type="checkbox"/>
<i>Choose three (3) hours from these courses:</i>				
CJ 1003	CRJU 1023	<input type="checkbox"/> Introduction to Criminal Justice <input type="checkbox"/> ECON [P5], GEOG, HIST, PSCI, PSYC, or SOC prefix	<input type="checkbox"/>	<input type="checkbox"/>

**Total Credit Hours: 60**

<sup>1</sup>Indicates Technical Certificate in **Nondestructive Testing (30 hours)**.

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

## PREREQUISITES

P1	Refer to the SAU Tech Placement Plan.
P2	ENGL1113-Composition I
P3	NDT1013-Radiographic Testing Level I.
P4	NDT1003-Radiation Safety.
P5	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 **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.

### **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.