

AEROSPACE TECHNOLOGY NONDESTRUCTIVE TESTING AND INSPECTION (BTC)

Basic Technical Certificate

Career-Technical Program

Interest Areas:

Manufacturing and Trades

This program prepares students for entry-level employment as a Nondestructive Testing Technician to be placed in a position to be certified by industry. The program will provide quality, hands-on education with the industry's most current and sophisticated testing equipment. Nondestructive Testing and Inspection technicians are increasingly in demand. This program will provide students with the information required to be trained technicians who understand NDT's role in the aerospace industry and who have knowledge of American Society for Nondestructive Testing (ASNT) standards and been trained in NDT methods, including liquid penetrant, magnetic particle, and visual inspection processes, eddy current, ultrasonic testing. Students will also learn the basics of materials and processes associated with NDT technology. Nondestructive evaluation (NDE) utilizes a number of techniques to determine the health of an engineering component or structure without affecting its usefulness.

Program Website (https://www.nic.edu/programs/viewprogram.aspx?program_id=98)

Program Requirements

Code	Title	Credits
AERO-101	Aviation Science	3
AERO-191	Visual Inspection	1
AERO-192	Liquid Penetrant	1
AERO-193	Magnetic Particle	2
AERO-194	Eddy Current	3
AERO-195	Ultrasonic	4
Total Credits		14

Course Key



GEM



WCHE



AAS

Institutionally
Designated



Gateway



Milestone

testing process and limitations, indication interpretation and evaluation, and data reporting.

- Students will demonstrate the use of basic communication skills to meet the needs of the workplace.
- Students will demonstrate they have a basic understanding of refining processes, mechanical and physical properties of testing samples, and alloying of ferrous and nonferrous materials.
- Students will demonstrate they have a general knowledge of the historical, environmental, safety and ethical importance of proper Non-destructive Testing (NDT) execution.

Program Outcomes

Upon completion of the program, students will be able to:

- Students will demonstrate the skills necessary to enter the work force with entry-level Non-destructive Testing (NDT) knowledge.
- Upon successful completion students shall be able to demonstrate knowledge of method theory and concepts, standards, equipment calibration and calibration standards,