

AATA 105B: RADIOGRAPHIC TESTING LEVEL 2

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2023
Units:	3
Hours:	40 lecture per quarter (40 total per quarter)
Prerequisite:	This course is limited to students admitted to the Nondestructive Testing Technician Apprenticeship Program.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	None
Grade Type:	Pass/No Pass Only
Repeatability:	Not Repeatable

Description

This course prepares students to perform industrial radiography, including dark room facilities, image quality, indications, codes and standards.

Course Objectives

The student will be able to:

- Perform RT tests
- Develop or process film
- Analyze results and interpret indications

Course Content

- Dark room facilities
 - Facilities and equipment
 - Film loading
 - Protection of radiographic
 - Processing of film - manual
 - Automatic film processing
 - Film filing and storage
- Radiographic image quality
 - Radiographic sensitivity
 - Radiographic contrast
 - Definition
 - Film graininess
 - Image Quality Indicators (IQI)
- Viewing radiographs
 - Equipment
 - Acceptable densities
 - Film viewing considerations
 - Indications: Relevant and non-relevant
- Unsatisfactory radiographs
- Weldments and castings

- Welding discontinuities
 - Casting discontinuities
- ASME V, Article 2
 - Sensitivity, geometrical unsharpness and density requirements, ASME V Table T-276/ASTM E-94 Standards
 - Application of RT to pressure vessels
 - ASME VIII

Lab Content

Not applicable.

Special Facilities and/or Equipment

- Dummy source, caution tape, film, film viewer.
- When taught via Foothill Global Access, on-going access to computer with email software and hardware; email address.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

- Results of a written test
- Results of practical test

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

- Discussion
- Slideshow
- Video
- Demonstration
- Hands-on training

Representative Text(s) and Other Materials

American Society for Nondestructive Testing. [Personnel Training Publications: Radiographic Testing \(RT\), Classroom Training Book, 2nd ed.](#), 2016.

This text is still widely used within the industry and is the most current text used for training.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- [Reading: Read Chapter 17 - Application to Pressure Vessels](#)
- [Writing: Complete Quiz 17 on page 105. Quiz results will be reviewed in class as a group](#)

Discipline(s)

Industrial Maintenance