

ATA 105C: NON-FILM RADIOGRAPHIC TESTING

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2023
Units:	2.5
Hours:	30 lecture, 10 laboratory 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

In this course students will learn the advanced radiographic techniques of computed radiography and digital radiography.

Course Objectives

The student will be able to:

- Understand the principles of digital and computed radiography
- Understand abbreviations and Greek symbols used
- Select appropriate equipment
- Know how to apply technique to code and standards

Course Content

- Module 1: Carestream digital radiography course description
- Module 2: Common abbreviations for digital imaging
- Module 3: Greek symbols
- Module 4: Flexible storage phosphor plate vs. film-based technology for erosion/corrosion profiling
- Module 5: Myths vs. reality in computed radiography image quality
- Module 6: Qualification of a computed radiography system's exposure range for optimum image quality
- Module 7: Automated and quantitative method for quality assurance of digital radiography imaging systems
- Module 8: Computed radiography
 - Phosphor plates
 - Film vs. CR
 - Limitations of CR
- Module 9: Digital radiography
 - Flat panel detectors
 - Image enhancement tools

Lab Content

- Technique selection
- Penetrameter requirements
- Location marker and IQI placement
- Identification of defects
- Interpretation
- Accept/Reject

Special Facilities and/or Equipment

- CR film scanner, interpretation software, CR film, DR panels.
- 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

Handouts and equipment manuals provided by instructor.

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

- Reading of in-class handouts
- Reading of in-class manuals

Discipline(s)

Industrial Maintenance