

# VT 200 : RADIATION SAFETY

---

## Transcript title

Radiation Safety

## Required materials

Textbook.

## Credits

2

## Grading mode

Standard letter grades

## Total contact hours

20

## Lecture hours

20

## Prerequisites

VT 111, VT 112, VT 113 and VT 116.

## Corequisites

VT 201, VT 203, VT 209, VT 212.

## Course Description

Introduces x-radiation and safety principles involved in using x-ray machines.

## Course learning outcomes

1. Explain how x-rays are produced, the dangers of radiation, and appropriate safety measures when working around radiation.
2. Summarize radiographic quality control measures.
3. Explain the procedure used to develop a radiographic technique chart.
4. Discuss the principles and methods used to develop x-ray films.
5. Compare and contrast types of animal restraints and positioning techniques for obtaining quality radiographs.
6. Critique radiographic images and describe specific measures to improve techniques.
7. Explain how to properly label, file, and store radiographic images.
8. Summarize federal and state regulations related to radiation.

## Content outline

1. X-rays: Characteristics and properties
2. X-ray tube anatomy and function
3. Exposure factors and technique charts
4. Radiographic image quality
5. Radiographic technique evaluation
6. Scatter radiation, grids, collimation
7. Radiation safety
8. Overview of positioning
9. Digital imaging
10. Causes of x-ray tube failure
11. Radiographic artifacts