

**Course:           Radiation Safety for X-ray Operators**

**Instructor:      Mel Bocchichio, CVT**

**Course description:**

This 10-hour radiation safety training course is designed to educate x-ray operators on the principles of radiation safety as it relates to the use of x-ray devices in diagnostic medicine. Students will learn all aspects related to the use of x-rays in medicine including the operation of x-ray equipment, determining exposure parameters, radiographic technique, image processing & critique. Students will develop a deep understanding of the operation of x-ray equipment and image processing systems through step-by-step instruction and video demonstration. The implementation of safety protocols is widely covered to stress the importance of patient and x-ray operator safety. This lecture course will educate the students on the principles of radiation protection, exposure monitoring, and regulations. This course satisfies the requirements established in OAR 333-120-0055.

**Course outcome:**

Successful students will be able to demonstrate competency in the safe use of x-ray equipment and associated x-ray procedures. Students will gain knowledge about the uses of radiation in diagnostic medicine as well as implementing safety measures to maximize diagnostic benefit while minimizing negative effects. Students that complete this course will be able to:

Safely operate x-ray equipment

Knowledge of necessary information to perform a radiographic examination

Prepare a patient for a radiographic examination

Safely position and restrain a veterinary patient for various radiographic exams

Maintain personal safety while operating x-ray equipment

Obtain a radiograph on a film or digital radiography system

Process images in film or digital radiography

Determine appropriate radiographic technique

Image critique

Understand the importance of dosimetry & the circumstances that it is necessary

Understand how to read a dosimetry report

Perform quality control on x-ray equipment

Hands free technique

**Course format:**

This 10-hour lecture course is held on a Saturday once a month from 8am- 6pm in a conference space. This course is open to any veterinary professional seeking training to permit them to be present in the x-ray room. The lecture contains detailed video demonstrations as well as live demonstrations. The image critique portion of the course is an interactive group discussion. Students will have the opportunity to ask questions at intervals throughout the lecture. A course examination will be given at the end of the course.

**Course examination:**

At the end of the course, students will be required to pass an examination in order to receive certification for the course. The examination includes multiple choice, true/false, and fill in the blank questions. The test is 41 questions that are worth a total of 100 points. Each student must obtain a 70% or higher on the examination to pass the course. Successful students will receive a course certificate, permitting them to take radiographs in the State of Oregon under a licensed x-ray device registration.