

**NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE**

**COURSE SYLLABUS**

**Course Title:** Principles of Imaging

**Course #:** VET \* 212

**Course Description:** 1 semester hour (1.33 hour lecture / 0.67 hour lab). The principles of radiation and its uses in patient diagnostics are presented. Students will develop the technical skills needed to perform radiological imaging procedures. Alternative imaging techniques are also introduced. The dog and cat are used in the laboratory.

**Pre-requisite/Co-requisite:** VET\*151, 201, 202, and 280. Must be taken concurrently with VET\*230 and VET\*240.

**Goals:** The student will develop the skills to safely and efficiently produce quality diagnostic radiographic images in the clinical setting. Satisfactory completion of Principles of Imaging will prepare the student for the radiology/imaging questions of the National Veterinary Technician Exam.

**Outcomes:** After completion of this course the student will be able to:

- Describe how x-rays are produced
- Implement and observe recommended radiation safety measures while producing quality diagnostic radiographic images
- Implement effective radiographic quality control measures
- Develop and utilize accurate radiographic technique charts
- Demonstrate the general principles of animal positioning while taking radiographs (including laboratory and exotic animals)
- Describe and demonstrate radiographic techniques utilized in screening for canine hip dysplasia
- Utilize radiographic equipment to expose x-ray film (stationary and portable units)
- Label, file and store images
- Complete radiographic logs, reports, files and records
- Utilize positive and negative radiographic contrast media (including GI series or pneumocystogram or intravenous urogram)
- Demonstrate proper maintenance of radiographic equipment, including recognition of faulty equipment operation
- Explain how technical artifacts are generated and demonstrate how they are prevented when taking radiographs
- Describe the use of ultrasound and endoscopic equipment
- Explain how alternative imaging technologies are used in veterinary medicine