

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



COURSE OUTLINE

VSCT 205 – RADIOGRAPHIC TECHNIQUES

PREPARED BY: TONY BEANE, DVM

**SCHOOL OF SCIENCE, HEALTH, AND CRIMINAL JUSTICE
VETERINARY SCIENCE TECHNOLOGY
MAY 2015**

- A. **TITLE:** RADIOGRAPHIC TECHNIQUES
- B. **COURSE NUMBER:** VSCT-205
- C. **CREDIT HOURS:** 2
- D. **WRITING INTENSIVE COURSE:** No
- E. **COURSE LENGTH:** 15 weeks
- F. **SEMESTER(S) OFFERED:** Spring
- G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY:** 1 hour lecture, 2 hours laboratory per week
- H. **CATALOG DESCRIPTION:** This course is designed as an introduction to radiology and other types of imaging in a veterinary facility. Students will be required to position patients, calculate exposure values, exposed radiographic film and process films manually, automatically and digitally. Students will examine radiographs taken by their lab groups and critique them for their diagnostic quality. Students will be instructed on radiation hazards and how to avoid them. The use of ultrasound will be demonstrated and alternative technologies for imagining such as fluoroscopy, CT, MRI and nuclear scintigraphy will be discussed.
- I. **PRE-REQUISITES:** VSCT-115 Vet Nursing II, VSCT-114 Animal Anatomy & Physiology and VSCT 112- Clinical Pathology I.
- J. **GOALS (STUDENT LEARNING OUTCOMES):**
By the end of this course, the student will:

<i>Course Objective</i>	<i>Institutional SLO</i>
a. define common terms associated with taking a radiograph such as kVp, mAs, FFD and latent image.	3. Prof. Competence
b. list hazards associated with the use of radiographic equipment.	3. Prof. Competence
c. list the steps necessary to process a radiograph.	3. Prof. Competence
d. use appropriate terminology for alternative imaging technologies.	3. Prof. Competence
e. critique finished radiographs and make suggestions for improvement.	2. Critical Thinking 3. Prof. Competence

K. **TEXTS:**

Ayers, Susie. Small Animal Radiographic Techniques and Positioning. Ames, IA: Wiley-Blackwell, 2012.

Beane, Tony. Radiology Note Packet. 2015.

L. REFERENCES:

M. EQUIPMENT:

Technology enhanced classroom

N. GRADING METHOD: A-F

O. MEASUREMENT CRITERIA/METHODS:

Quizzes

Exams

Laboratory radiographs

P. DETAILED COURSE OUTLINE:

1. X-ray production
2. Exposure factors
3. Radiographic quality
4. Image receptors
5. Film processing
6. Radiographic technique evaluation
7. Artifacts
8. Alternative imaging technologies

Q. LABORATORY OUTLINE:

Week 1	Radiation safety, screen demonstration
Week 2	Technique chart abdomen
Week 3	Thorax/grid use
Week 4	Spine/disk disease
Week 5	Thoracic limb/shoulder/OCD
Week 6	Pelvis/hip dysplasia
Week 7	Upper GI
Week 8	Contrast cystography
Week 9	Head/dental
Week 10	Quality control
Week 11	Exotics
Week 12	Ultrasound
Week 13	Digital machine
Week 14	Endoscope