COURSE INFORMATION FORM

DISCIPLINE
Veterinary Technology

COURSE TITLE
Radiology and Electronic Procedures

CR.HR 2  LECT HR. 1  LAB HR. 2  CLIN/INTERN HR.  CLOCK HR.  

CATALOG DESCRIPTION
Intensive study and practice in radiological techniques, radiographic exposure techniques, film processing, contrast radiography and machine electronics.

PREREQUISITES
None

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:
1. Explain principles for producing a radiograph and evaluating the finished product.
2. Apply techniques to radiograph dogs and cats and develop the x-ray.

GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

Communication: Reading Skills (ESO)
3. Make accurate inferences and predictions based on evidence (1,2)
6. Make valid generalizations and apply information (1,2)

Critical Thinking: Sort and classify information
4. Distinguish the relevant from irrelevant and integrate key relationships (1,2)

Critical Thinking: Define, analyze, and evaluate information, materials and data
2. Construct valid inferences from facts, credible sources, experiences, anecdotes, and values and belief systems (1,2)

Life-Long Learning: Attributes of an Awareness of the Convergence of Knowledge
2. Apply learned skills to real world interactions (1,2)
3. Synthesize information to facilitate application (1,2)
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

The student will demonstrate:
1. the ability to communicate effectively and clearly with instructors regarding the treatment and care of animals
2. knowledge of the history of Veterinary Technology and the Code of Ethics and Standards of Practice for the Veterinary Technician
3. the ability to carry out the role and function of a Veterinary Technician
4. an understanding of the business role that technicians play in a veterinary hospital

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)
1. Lecture test (1)
2. Laboratory (written) examinations (2)
3. Final examination (1)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Lecture
   A. X-ray production
      1. Types of radiation
      2. Effects of milliamperage
      3. Effects of kilovoltage
      4. X-ray tubes
   B. Radiographic safety
      1. Scatter radiation
      2. Beam filtration
      3. Beam collimation
   C. Radiographic detail and definition
      1. Intensifying screens
      2. Radiographic contrast
      3. Grids
      4. Types of films
      5. Radiographic density
      6. Artifacts
      7. Contrast studies
   D. Processing
      1. Film identification
      2. Troubleshooting

II. Lab
   A. Development of technique charts
   B. Processing
      1. Manual – Chair side developer
      2. Automatic
   C. Positioning and exposure for feline and canine radiographs
   D. Analysis of technique
   E. Evaluation of radiographs