

Veterinary Nursing Distance Learning Fall 2025 version

# Small Animal Diagnostic Imaging Mentorship I



VM 21500

Criteria Logbook

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# **Student Information**

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# **Clinical Mentorship Tasks**

- 1. Video verification of required equipment and supplies
- 2. Lateral thorax image
- 3. VD thorax image
- 4. Lateral abdomen image
- 5. VD abdomen image
- 6. Radiology patient log

ALL SKILLS MUST BE DEMONSTRATED ON LIVE ANIMALS. Models or cadavers are not acceptable.

# Student Information

# **Contact Information**

Questions regarding the overall Clinical Mentorship process should be directed to-

Jennifer Smith, BS, RVT, LATG

Clinical Mentorship Coordinator

jpope@purdue.edu

<u>Questions regarding this mentorship (tasks, due dates, etc.) should be directed to the instructor for this mentorship course.-see Brightspace</u>

#### **Animal Use Guidelines**

The student shall abide by the following guidelines when performing mentorship tasks:

- 1. All animals used for demonstration of mentorship skills must be appropriated restrained by another person, for the safety of the patient and the student.
- 2. A mentorship task may be performed only once on a single animal.
- 3. A student may perform a maximum of ten (10) minimally invasive tasks (denoted by one asterisk) on a single animal within a 24-hour period.
- 4. A student may perform a maximum of three (3) moderately invasive tasks (denoted by two asterisks) on a single animal within a 24-hour period.
- 5. When combining tasks, a student may perform a maximum of five (5) minimally and three (3) moderately invasive tasks on a single animal within a 24-hour period.
- 6. Tasks denoted with no asterisks do not involve live animal use.

For example, a student might perform the following tasks on an animal in a single day-

- Restrain a dog in sternal recumbency\*
- Restrain a dog in lateral recumbency\*
- Restrain a dog for cephalic venipuncture\*
- Restrain a dog for saphenous venipuncture\*
- Restrain a dog for jugular venipuncture\*
- Administer subcutaneous injection\*\*
- Administer intramuscular injection\*\*
- Intravenous cephalic injection canine\*\*

### Failure to comply with the Animal Use Guidelines may result in failure of the Clinical Mentorship.

Ensuring the welfare and safety of animals during handling and restraint is paramount. Proper techniques must be employed to minimize stress and prevent injury. This involves understanding the normal behavior of the animal, using humane methods, and applying the least amount of restraint necessary to achieve the desired outcome. Training in these techniques is essential for all personnel involved in animal care. The use of physical, mechanical, or pharmaceutical restraints should be carefully considered and monitored to ensure they are appropriate and effective.

With this in mind, the student is expected to utilize Fear Free® techniques for animal handling and restraint, as well as ensure that all patients are handled and restrained appropriately when they perform skills. Failure to do so will result in consequences ranging from loss of points or repeating the task, up to failure of the course and / or dismissal from the program.

By adhering to these principles, we can promote the health and well-being of animals while ensuring a safe environment for both patients and veterinary personnel.

# Selecting the Clinical Mentorship Site – Facility Requirements

You must visit the Clinical Mentorship Site and determine if the following supplies and equipment are readily available to you for use during your Clinical Mentorship. The mentorship supervisor will verify the availability of required items by completing the Mentorship and Facility Requirement Agreement.

#### The veterinary care facility must be equipped with the following equipment:

- 300MA / 125KVP x-ray machine (high-output machine for analog or digital radiography)
- Technique chart for x-ray machine and standard operating procedures (SOP)
- Thyroid shields (2)
- 0.5mm lead aprons (2)
- 0.5mm lead gloves that provide 360 degree coverage of hands (2 pairs)
- Individual personal radiation exposure monitoring device (dosimetry badge)
- Right and left *lead* identification markers
- Patient identification labeling system for digital images that includes ALL the following information <u>prior to exposure</u>:
  - o Patient first name
  - o Patient late name
  - Facility name
  - Date image acquired

#### Introduction to Essential Tasks and Criteria

#### Before starting each task-

- 1. Read the Goal, Description, Criteria, and Materials to be Submitted for Evaluation and Verification. Understand what is expected for each task.
- 2. Make sure that all equipment and supplies needed to complete the task are available. Pay particular attention to the details of what needs to be documented and submitted.
- 3. Make sure to obtain appropriate permissions where necessary. Please inform the facility's owner/manager of activities. A good relationship with the veterinarian in charge is key to having a positive Clinical Mentorship experience.

#### After performing each task-

- 1. Label all items submitted so that the materials submitted for evaluation and validation at Purdue are identified as the student's submission.
- 2. Label all videos posted to Brightspace with the task number.
- 3. Submit materials by the deadlines listed in the course syllabus

# **Introduction to Special Projects**

Certain mentorships will have required projects to complete in addition to the required tasks. Written projects should be typed, and checked for correct grammar and spelling. Photos should be embedded into the related written documents.

#### Before starting each project-

- 1. Read through the project in its entirety. This will give you a description of the project and what is needed to complete it successfully.
- 2. Determine what materials, if any, need to be submitted for completion of the project.
- 3. Most projects will come with a list of questions/points that need to be addressed and included in the written document.
- 4. If video is required for a project, it should be noted on the videotape verbally that this is for the project and not another required task. Some projects may require a verbal narration of a student doing something. Each individual project will define if that is a necessary requirement for that project.

# 1. VIDEO VERIFICATION OF REQUIRED EQUIPMENT AND SUPPLIES

**Goal:** Ensure that the student will have access to all equipment and supplies necessary to complete the skills in this course.

**Description:** The student will provide a narrated video showing equipment and supplies specific to this mentorship, to verify that required items are available to them and adequate for completion of tasks in their facility.

- The student *donned in PPE* introduced the video and showed their face and the mentor's face clearly.
- The student walked through the facility and showed the following clearly:
  - VNDL-provided sign informing clients that students may be involved in patient care (it should be displayed in an area that is visible to clients).
  - 300MA / 125KVP x-ray machine (high-output machine for analog or digital radiography)
  - Evidence of machine maintenance and inspection (state certification)
  - Technique chart for x-ray machine
  - o Standard operating procedures (SOP) for machine demonstrated and narrated
  - Thyroid shields (2)
  - 0.5mm lead aprons (2)
  - 0.5mm lead gloves that provide 360 degree coverage of hands (2 pairs)
  - Right and left *lead* identification markers
  - o <u>Individual</u> personal radiation exposure monitoring device (dosimetry badge)
  - Demonstrate the patient identification labeling system for digital images that includes
    ALL the following information prior to exposure:
    - Patient first name
    - Patient late name
    - Facility name
    - Date image acquired

# 1. VIDEO VERIFICATION OF REQUIRED EQUIPMENT AND SUPPLIES (CONTINUED)

Number of Ti	imes Task Needs to	o be Successfully	/ Performed:	1

- 1. Task Verification Form for Video Verification of Required Equipment and Supplies, signed by the Clinical Mentorship supervisor.
- 2. One video showing the student as they introduced themselves and walked through the facility, showing the listed items clearly. The student narrated the video live as they showed items.
- 3. Radiographic image showing the patient label. (JPG or PDF) labeled as task1Rad

Student Name:	
Supervisor Name:	RVT, CVT, LVT, LVMT, DVM, VMD
I verify that the student will have access to the items shown, for	tasks in this course.
Signature of Clinical Mentorship Supervisor:	

# 2. LATERAL THORAX IMAGE AND POSITIONING

**Goal:** To produce a diagnostic lateral radiograph of the thorax

**Description:** The student will position the animal in required recumbency and produce a radiograph of diagnostic quality while following proper radiation safety regulations.

**Note:** Both feline and canine radiographic positioning must be performed. Of the thoracic videos and radiographs submitted, one radiograph/video must be canine and the other a feline patient.

The student may NOT crop the image post-exposure or use computer- editing software. Appropriate collimation must be done when producing the image to decrease scatter radiation.

- <u>The student and all assisting donned all required Radiation Safety PPE</u> or utilized alternative restraint methods and left the room. **(CRITICAL)**
- The student positioned the animal in lateral recumbency
- The student appropriately collimated the primary beam to include only the landmarks for thoracic radiographs as defined in the course material and the textbook creating a diagnostic quality image
- The student utilized a proper lead identification marker (L or R).
  - Post-exposure digital markers are not accepted
- The student made the radiograph at peak inspiration
- The student produced a diagnostic quality radiograph (CRITICAL)
- The student recorded the full process (positioning and production) of the radiograph with a recorded post-production radiographic diagnostic quality (CALIPER) self-evaluation that includes the following criteria: (CRITICAL)
  - Collimation
  - Artifacts
  - Landmarks
  - Identification
  - Positioning errors
  - Exposure techniques (radiographic contrast)
  - Radiographic presentation

# 2. LATERAL THORAX IMAGE AND POSITIONING (CONTINUED)

# Number of Times Task Needs to be Successfully Performed: 2

- 1. Task Verification Form signed by the clinical mentorship supervisor.
- 2. One unedited video clearly demonstrating the student positioning the patient, producing the radiograph, and providing a post-production verbally narrated CALIPER diagnostic quality image evaluation, as defined by the criteria outlined above for this task.
- 3. Radiographic image. (JPG or PDF) labeled as task2Rad

Student Name:		
Supervisor Name:	RVT, C	CVT, LVT, LVMT, DVM, VMD
Patient Name:	Date:	dog / cat
Patient Name:	Date:	dog / cat
I verify that the student performed the	se tasks under my direct supervision.	
Signature of Clinical Mentorship Super	visor <sup>.</sup>	

# 3. VENTRODORSAL (VD) THORAX IMAGE

**Goal:** To produce a diagnostic VD radiograph of the thorax

**Description:** The student will position the animal in required recumbency and produce a radiograph of diagnostic quality while following proper radiation safety regulations.

**Note:** Both feline and canine radiographic positioning must be performed. Of the thoracic videos and radiographs submitted, one radiograph/video must be canine and the other a feline patient.

The student may NOT crop the image post-exposure or use computer- editing software. Appropriate collimation must be done when producing the image to decrease scatter radiation.

- The student and all those assisting donned all Radiation Safety PPE or utilized alternative restraint methods (CRITICAL)
- The student positioned the animal in ventrodorsal recumbency
- The student appropriately collimated the primary beam to include only the landmarks for thoracic radiographs as defined in the course material and the textbook.
- The student utilized a proper lead identification marker (L or R).
  - Post-exposure digital markers are not accepted
- The student made the radiograph at peak inspiration
- The student produced a diagnostic quality radiograph (CRITICAL)
- The student recorded the full process (positioning and production) of the radiograph with a postproduction recorded radiographic diagnostic quality (CALIPER) self-evaluation that includes the following criteria (CRITICAL)
  - Collimation
  - Artifacts
  - Landmarks
  - Identification
  - Positioning errors
  - Exposure techniques (radiographic contrast)
  - Radiographic presentation

# 3. VENTRODORSAL (VD) THORAX IMAGE (CONTINUED)

Number of Times Task Needs to be Successfully Performed: 2

- 1. Task Verification Form signed by the clinical mentorship supervisor.
- 2. One unedited video clearly demonstrating the student positioning the patient, producing the radiograph, and providing a post-production verbally narrated CALIPER diagnostic quality image evaluation, as defined by the criteria outlined above for this task.
- 3. Radiographic image. (JPG or PDF) labeled as task3Rad

Student Name:		
Supervisor Name:	RVT, C	CVT, LVT, LVMT, DVM, VMD
Patient Name:	Date:	dog / cat
Patient Name:	Date:	dog / cat
I verify that the student performed thes	se tasks under my direct supervision.	
Signature of Clinical Mentorshin Suner	visor:	

# 4. LATERAL ABDOMEN IMAGE

**Goal:** To produce a diagnostic lateral radiograph of the abdomen

**Description:** The student will position the animal in required recumbency and produce a radiograph of diagnostic quality while following proper radiation safety regulations.

**Note:** Both feline and canine radiographic positioning must be performed. Of the abdominal videos and radiographs submitted, one radiograph/video must be canine and the other a feline patient.

The student may NOT crop the image post-exposure or use computer- editing software. Appropriate collimation must be done when producing the image to decrease scatter radiation.

- The student and all those assisting donned Radiation Safety PPE or utilized alternative restraint methods (CRITICAL)
- The student positioned the animal in lateral recumbency
- The student appropriately collimated the primary beam to include only the landmarks for abdominal radiographs as defined in the course material and the textbook.
- The student utilized a proper lead identification marker (L or R).
  - Post-exposure digital markers are not accepted
- The student made the radiograph at peak expiration.
- The student produced a diagnostic quality radiograph (CRITICAL)
- The student recorded the full process (positioning and production) of the radiograph with a recorded post-production radiographic diagnostic quality (CALIPER) self-evaluation that includes the following criteria: (CRITICAL)
  - Collimation
  - Artifacts
  - o Landmarks
  - Identification
  - Positioning errors
  - Exposure techniques (radiographic contrast)
  - Radiographic presentation

# 4. LATERAL ABDOMEN IMAGE (CONTINUED)

# Number of Times Task Needs to be Successfully Performed: 2

- 1. Task Verification Form signed by the clinical mentorship supervisor.
- 2. One unedited video clearly demonstrating the student positioning the patient, producing the radiograph, and providing a post-production verbally narrated CALIPER diagnostic quality image evaluation, as defined by the criteria outlined above for this task.
- 3. Radiographic image. (JPG or PDF) labeled as task4Rad

Student Name:		
Supervisor Name:	RVT, (	CVT, LVT, LVMT, DVM, VMD
Patient Name:	Date:	dog / cat
Patient Name:	Date:	dog / cat
I verify that the student performed the	se tasks under my direct supervision.	
Signature of Clinical Mentorshin Suner	visor <sup>.</sup>	

# 5. VENTRODORAL (VD) ABDOMEN IMAGE AND POSITIONING

Goal: To produce a diagnostic VD radiograph of the abdomen

**Description:** The student will position the animal in required recumbency and produce a radiograph of diagnostic quality while following proper radiation safety regulations.

**Note:** Both feline and canine radiographic positioning must be performed. Of the abdominal videos and radiographs submitted, one radiograph/video must be canine and the other a feline patient.

The student may NOT crop the image post-exposure or use computer- editing software. Appropriate collimation must be done when producing the image to decrease scatter radiation.

- The student and all those assisting donned Radiation Safety PPE or utilized alternative restraint methods (CRITICAL)
- The student positioned the animal in VD recumbency
- The student appropriately collimated the primary beam to include only the landmarks for abdominal radiographs as defined in the course material and the textbook.
- The student utilized a proper lead identification marker (L or R). *Post-exposure digital markers* are not accepted
- The student made the radiograph at peak expiration.
- The student produced a diagnostic quality radiograph (CRITICAL)
- The student recorded the full process (positioning and production) of the radiograph with a recorded post production radiographic diagnostic quality (CALIPER) self-evaluation that includes the following criteria: (CRITICAL)
  - Collimation
  - Artifacts
  - Landmarks
  - Identification
  - Positioning errors
    - Exposure techniques (radiographic contrast)
- Radiographic presentation

# 5. VENTRODORAL (VD) ABDOMEN IMAGE AND POSITIONING (CONTINUED)

### Number of Times Task Needs to be Successfully Performed: 2

- 1. Task Verification Form signed by the clinical mentorship supervisor.
- 2. One unedited video clearly demonstrating the student positioning the patient, producing the radiograph, and providing a post-processing verbally narrated CALIPER diagnostic quality image evaluation, as defined by the criteria outlined above for this task.
- 3. Radiographic image. (JPG or PDF) labeled as task5Rad

Student Name:		
Supervisor Name:	RVT, CV	T, LVT, LVMT, DVM, VMD
Patient Name:	Date:	dog / cat
Patient Name:	Date:	dog / cat
I verify that the student performed thes	se tasks under my direct supervision.	
Signature of Clinical Mentorship Super	visor:	

# 6. RADIOLOGY LOG

Goal: To record accurate information for patient radiographs in a radiology-specific log

**Description:** The student kept a log of all the patients that were utilized for this mentorship to ensure that they are following the state regulations of radiographic logs.

#### Criteria:

- The student created a radiographic log that includes the following information:
  - Date image taken
  - Patient ID
  - o Patient first and last name
  - Species
  - Anatomical region of interest
  - o Caliper measurement (if applicable) or weight
  - o kvp
  - o mAs
  - The x-ray machine manufacturer and model (and the digital system make and model if different than the machine)
- The student accurately recorded information from all the thorax and abdomen images produced in this course

Number of Times Task Needs to be Successfully Performed: 1 Electronic Log

- 1. Task Verification Form signed by the clinical mentorship supervisor.
- 2. Copy of the radiology log page for all thorax and abdomen images produced in this course in electronic form (PDF or word document)

Student Name:	
Supervisor Name:	RVT, CVT, LVT, LVMT, DVM, VMD
I verify that the student performed these tasks u	nder my direct supervision.
Signature of Clinical Mentorship Supervisor:	