

LARGE ANIMAL ANESTHESIA CLINICAL MENTORSHIP



VM 21100

CRITERIA HANDBOOK AND LOGBOOK

INDEX OF NOTEBOOK

Student Information

- Goals of Large Animal Anesthesia Clinical Mentorship
- Contact person at Purdue University
- Pre-requisites for VM 21100 Large Animal Anesthesia Clinical Mentorship
 - ❖ Contracts and agreements
 - ❖ Technical standards
 - ❖ Insurance
- Selection of Clinical Mentorship site – facility criteria
- Selection of Mentorship Supervisor
- Materials – The Criteria Handbook and Logbook
- Completion of Pharmacy Clinical Mentorship

Clinical Mentorship Tasks

1. Obtain a History Prior to Anesthesia
2. Preanesthetic Evaluation of the Patient for Anesthesia*
3. Preanesthetic Preparation of the Anesthetic Machine
4. Preparation of Supplies Prior to General Inhalant Anesthesia
5. Induction of Anesthesia**
6. Equine Intubation**
7. Maintenance and Monitoring of General Anesthesia**
8. Anesthesia Record Procedures
9. Recovery from Anesthesia*
10. Equine Extubation*

NOTE THE FOLLOWING DUE DATES FOR THE TASKS ABOVE:

Fall or Spring semester 5:00p.m. Thursday of week 6 – Tasks 1-10 (preferred)¹

5:00p.m. Thursday of week 10 – Tasks 1-10 (absolute)

Summer session 5:00p.m. Thursday of week 4 – Tasks 1-10 (preferred)¹

5:00p.m. Thursday of week 7 – Tasks 1-10 (absolute)

¹If you will not be able to meet the preferred due date you should contact the instructor, Paige Allen, at pjones2@purdue.edu BEFORE the due date.

Incomplete grades will not be assigned for mentorships at the end of the semester.

Grade penalties will be assessed for tasks submitted after the due date.

Resubmission due dates will be set by the instructor as required.

****IMPORTANT! See following page for due dates for all tasks and Animal Use Guidelines***

Animal Use Guidelines

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

1. A mentorship task may be performed only once on a single animal.
2. 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.
3. 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.
4. 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.
5. 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:

1. Restrain a dog in sternal recumbency*
2. Restrain a dog in lateral recumbency*
3. Restrain a dog for cephalic venipuncture*
4. Restrain a dog for saphenous venipuncture*
5. Restrain a dog for jugular venipuncture*
6. Administer subcutaneous injection**
7. Administer intramuscular injection**
8. Intravenous cephalic injection – canine**

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

STUDENT INFORMATION

GOALS OF VM 21100 LARGE ANIMAL ANESTHESIA CLINICAL MENTORSHIP

Working with a veterinary care facility, the student will perform tasks under the supervision of a clinical mentor (veterinarian or credentialed veterinary technician).

In order to achieve the goals for this Clinical Mentorship, the tasks must be performed to the level of competency as outlined by the *Criteria* for each task.

The student is responsible for providing documentation for each task as defined by the *Materials Submitted for Evaluation and Verification* section on each task.

In addition to the documentation, the Clinical Mentorship site supervisor will verify that the student performed the task under their supervision.

Final approval of successful performance and completion of the Clinical Mentorship will be made by the Purdue University instructor in charge of the Clinical Mentorship. This approval will be based upon the documentation provided by the student.

The Purdue University instructor in charge has the option to require additional documentation if, in their judgment, the student has not performed and/or documented the task to the level set by the Criteria.

Documentation of completed tasks is essential to validate the educational process and insure that the performance of graduates of the Veterinary Technology Distance Learning Program meets the standards of quality required by the Purdue University College of Veterinary Medicine faculty and the American Veterinary Medical Association accrediting bodies.

CONTACT PERSON

Any questions regarding the Clinical Mentorship process should be directed to:

Pam Phegley, BS, RVT
Purdue University
Veterinary Technology Program
625 Harrison Street, Lynn Hall G171
West Lafayette IN 47907
(765) 496-6809
phegley@purdue.edu

PRE-REQUISITES FOR VM 21100 LARGE ANIMAL ANESTHESIA CLINICAL MENTORSHIP

Contracts and Agreements

Because of legal, liability and AVMA accreditation issues, the following documents must be completed *prior to beginning* the Clinical Mentorship

1. Facility Requirement Agreement
2. Clinical Mentorship Agreement
3. Supervisor Agreement
4. Health Risk and Insurance Acknowledgement
5. Professional Liability Insurance Coverage
6. Agreement and Release of Liability
7. Technical Standards Acknowledgement
8. Code of Conduct

These forms are available on the VTDL website for downloading, printout, and completion.

If more than one Clinical Mentorship course is taken, a separate Facility Certification, Clinical Mentorship Contract, and Supervisor Agreement must be completed for each course.

More than one Mentorship Supervisor may sign the mentorship logbook. Each must be either a DVM or a credentialed technician, and must complete a separate Supervisor Agreement.

Failure to complete and return the listed documents and the payment for Student Professional Liability Insurance Coverage will prevent the student from enrolling in the Clinical Mentorship.

Insurance

Two types of insurance are recommended or required for the student working in a Clinical Mentorship.

Health Insurance is highly recommended to cover the medical expenses should the student become injured while on the job. It is the student's responsibility to procure such insurance.

Liability Insurance is required to protect the student in the event of a suit filed against the student for acts he/she performed while in the Clinical Mentorship.

Each VTDL student is required to purchase, for a nominal fee, Professional Liability Insurance through Purdue University. This is done by completing the Professional Liability Insurance Coverage form and sending a check for the fee. This check must be separate from payment of course fees. The fee covers from the time of initiation of coverage until the subsequent July 31st.

Students will not be enrolled in Clinical Mentorships until the Professional Liability Insurance is paid, and the student is covered by the policy.

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. You must complete and have the facility veterinarian sign the Facility Requirement Agreement.

The veterinary care facility must be equipped with the following:

Equipment:

- Large Animal Anesthetic machine with an “out of circle” vaporizer
- Endotracheal tubes of various sizes with functioning cuffs
- Rebreathing system
- 2 – Rebreathing bags (1L-30L)
- Scavenge system (F-air canister is not acceptable)
- Clippers
- Stethoscope
- ECG or appropriate alternative cardiac rate or rhythm monitor
- Blood pressure monitoring equipment (machine or aneroid manometer)
- Pulse oximetry

Pharmaceuticals or agents:

- Isoflurane
- Oxygen
- Intravenous fluids
- Sterile saline for injection
- Sodium heparin (1000 units/mL)
- Xylazine hydrochloride (or detomidine hydrochloride), ketamine, diazepam, guaifenesin, butorphanol
- Emergency drugs

Disposable items:

- IV catheters
- Syringes
- Needles
- Cotton or other prep kits for prep of catheter site
- Aseptic solution for prep of catheter site
- Tape
- Fluid administration set
- Eye lubricant

The veterinary facility must have anesthetic records (used in clinic or the one provided) including:

- Date
- Patient Name, Signalment, Weight, Physical status, TPR prior to premedication
- Procedure
- Special precautions (if any) or patient conditions pertinent to anesthesia
- Preanesthetic, induction agent and any other agents administered in the pre-or peri anesthetic period with the amount given and the time
- Heart rate, respiratory rate and gas concentration recorded every 5 minutes in chart form
- IV fluid amount total at end of procedure
- Mean blood pressure, end tidal gas (CO₂ if available) and Pulse Oximetry recorded every 10 minutes
- Blood gas results (if available)
- Post-operative pain medication (if given) agent and amount
- Time anesthesia delivery stopped
- Time into recovery
- Time extubation
- Time standing
- Recovery rating

SELECTION OF CLINICAL MENTORSHIP SUPERVISOR

The Clinical Mentorship Supervisor is the person who will sign your Logbook and verify performance of tasks at the Clinical Mentorship site. This person must be a credentialed veterinary technician (have graduated from an AVMA accredited program or met State requirements for credentialing as a veterinary technician) or a licensed veterinarian.

An individual who claims to be a “veterinary technician” but has not met the criteria for credentialing above is not eligible to be mentorship supervisor.

The individual is not considered to be an employee of Purdue University when acting as your Clinical Mentorship supervisor.

Each Clinical Mentorship Supervisor must complete a *Supervisor Agreement*. You must return this agreement with the other agreements prior to beginning your Clinical Mentorship. Multiple supervisors may be used for documentation of mentorship tasks. Each supervisor must complete a separate agreement.

Should your Clinical Mentorship Supervisor change during the course of the Clinical Mentorship, you will need to have your new supervisor complete a *Clinical Mentorship Supervisor Agreement* and return it to the Purdue VTDL office. These forms are available on the VTDL website for downloading and printing.

CRITERIA HANDBOOK AND LOGBOOK

This Criteria Handbook and Logbook contains the list of tasks that must be successfully completed in order to receive credit for this Clinical Mentorship. You are expected to have learned the basics of how, why, and when each procedure is to be done from the courses listed as pre-requisites for this Clinical Mentorship. This booklet contains the directions and forms that must be followed and completed in order to meet the standards set for successful completion of this Clinical Mentorship.

Please read each component of each task carefully before doing the task to minimize the number of times you have to repeat the task. The components of each task are summarized:

Goal – Describes the ultimate outcome of the task you will perform.

Description – Lists the physical acts that you will perform, and under what conditions these acts will be completed.

Criteria – Lists specific, observable, objective behaviors that you must demonstrate for each task. Your ability to demonstrate each of these behaviors will be required in order to be considered as having successfully completed each task.

Number of Times Task Needs to be Successfully Performed – States the required number of times to repeat the tasks. The patient's name and the date each repetition of the task was performed must be recorded on the Task Verification Form.

EACH REQUIRED REPETITION OF THE TASK MUST BE PERFORMED ON A DIFFERENT ANIMAL. You cannot use the same animal to do all of the repetitions of a task. However, you can use the same animal to perform different tasks. In other words, you can't do three ear cleanings on the same animal, however, you can do an ear cleaning, an anal sac expression, and a venipuncture on the same animal.

Materials Submitted for Evaluation and Verification – These specific materials, which usually include video or other materials, must be submitted to demonstrate that you actually performed the task as stated. Each evaluation states specifically what must be shown in the submitted materials.

The Purdue University course instructor for this Clinical Mentorship has the option to request further documentation if the submitted materials do not clearly illustrate the required tasks.

It is recommended that the video materials document all angles of the procedure. The purpose of the video and other material is to provide "concrete evidence" that you were able to perform the task to the standard required.

If you do not own a video camera, one may be borrowed or rented. Pre-planning the video procedures will help reduce the need to redo the video documentation. Explain what you are doing as you perform the video documentation, as narration will help the evaluator follow your thought process and clarify what is seen on the video. Voiceovers may be done to clearly explain what is being performed. At the beginning of each task, clearly announce what task you are doing, or insert a written title in the video.

Videotapes, photographs, radiographs, slides, written projects, the Criteria Handbook and Logbook and any other required documentation will not be returned. These items will be kept at Purdue as documentation of the student's performance for accreditation purposes.

This validation is essential to help the Purdue VTDL meet AVMA accreditation criteria. Therefore, it is essential that you follow the evaluation and validation requirements.

Task Verification Forms – Each task has a form that must be completed and signed by the Clinical Mentorship Supervisor.

Supplementary Materials – Logs, written materials, photographs, or other forms/documentation may be required for specific tasks. Be sure to read the Materials to be Submitted for Evaluation section very carefully and return all documented evidence as prescribed.

COMPLETION OF THE CLINICAL MENTORSHIP

Mentorship logbooks include due dates for sections of courses. Each section must arrive at Purdue by the deadline (not a postmark date).

Paperwork may be

- FAXed to 765-496-2873
- e-mailed to phegleyp@purdue.edu
- sent by regular mail to 625 Harrison Street, Lynn Hall G171, West Lafayette, IN 47907

Videos may be submitted

- in the Media Gallery of Blackboard. If submitted on Blackboard, send an e-mail to phegleyp@purdue.edu notifying of the submission. ***This is the preferred method of online submission***, since it does not limit how much you put on, is no cost to you, and automatically archives here. You must assign the videos to the correct course in order for the instructor to view them.
- by an online source such as Dropbox. If a password is required to open videos submitted with an online service, email the password to phegleyp@purdue.edu. These methods may not be acceptable if they cannot be archived.
- by sending on a disc or flash drive by regular mail to 625 Harrison Street, Lynn Hall G171, West Lafayette, IN 47907

Late submissions will incur a grade penalty. Incomplete grades will no longer be assigned for mentorships at the end of each semester.

Feedback will be emailed until all tasks are completed successfully. A hard copy will be sent when the course is complete and a grade is assigned. As necessary, instructors may require resubmission of some tasks. When feedback is sent, due dates for resubmissions will be given. *It is crucial that students with pending feedback check their Purdue emails frequently so this information is received in a timely manner.*

Final approval of successful performance and completion of the Clinical Mentorship will be made by the Purdue University instructor in charge of the Clinical Mentorship based upon the documentation provided by the student.

Upon successful completion of all tasks in the clinical mentorship course, a grade will be assigned by the course instructor based upon the documented performance of the tasks.

CLINICAL MENTORSHIP TASKS

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 of you for each task.
2. Make sure you have whatever equipment and supplies you need to document the task. Pay particular attention to the details of what needs to be documented and submitted.
3. Make sure you obtain appropriate permissions where necessary. Please inform the facility's owner/manager of your activities. A good relationship with the veterinarian in charge is key to having a positive Clinical Mentorship experience.

After performing each task:

4. Label all items submitted so that the materials you submit for evaluation and validation at Purdue are identified as your submission.
5. Label all videos posted to Blackboard with the name of the task performed.
6. Submit materials to Purdue by the deadlines listed in the logbooks.

CLINICAL MENTORSHIP PROJECTS

INTRODUCTION TO SPECIAL PROJECTS

Certain mentorships will have required projects to complete in addition to the required tasks. These are skills that are better assessed in the form of a project. Projects should be typed, and checked for correct grammar and spelling.

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 that need to be answered. The responses should be included in the write up.
4. If videotaping 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.

Note: Videotaping and photographs are not for the purpose of verifying if the practice is within OSHA compliance or other government regulations. These projects are for the student's education. It may be determined by the student that the practice is not within the current recommendations. The purpose of these projects is to make the student aware of these issues, and how to recognize the issues and develop suggestions for improvement.

There will be certain mentorships where OSHA recommendations, in regards to equipment and policies, will be facility requirements for the mentorship.

IMPORTANT

Video submission for this course will include one equine case on inhalant anesthesia. The case will be followed from preparation through recovery.

The video submitted should include:

- **Obtaining a History**
- **Preanesthetic Evaluation of Patient**
- **Preanesthetic Preparation of Machine**
- **Preparation of Supplies**
- **Induction**
- **Intubation**
- **Maintenance and Monitoring (at least 15 minutes uninterrupted)**
- **Recovery**
- **Extubation**

A written anesthetic record corresponding to the case on video will also be submitted.

Although each step is separate in this logbook for purposes of evaluation, it is understood that the tasks are part of one continuous procedure.

1. OBTAIN A HISTORY PRIOR TO ANESTHESIA

Goal: To obtain complete and accurate information from a client by asking specific questions about the patient prior to the patient receiving general anesthesia.

Description: The student will question a client about the past and current condition of the patient that is to receive general anesthesia and record the history on the attached history sheet. As an alternative, the student may photocopy the recorded history from the clinical record if allowed to do so by the veterinarian. The clinical mentorship supervisor will verify the accuracy of the obtained history and observe the student performing the history to verify the criteria for this task.

Criteria: The student allowed the client to state the presenting problem or reason for visit before asking additional directed questions.

The student asked the questions clearly and used terminology the client understood so that the client was able to answer the question accurately.

The student asked specific questions regarding the following:

- Has the patient ever received anesthetic agents before (either sedatives or general anesthetics)
- If so, how did the patient recover from them
- Any reactions to medications
- How has the patient been acting
- How the patient ever had surgery or pertinent trauma in the past that might impact general anesthesia

The student asked a set of general health questions

The student maintained good communication skills:

- Good eye contact
- Non-verbal body language that encouraged the client to continue to speak
- Allowed the client to finish a statement without interrupting

The student asked questions in such a way that the question was not a leading question.

When/if a client was unable to understand a question; the student was able to formulate a different way of asking the same question and obtaining the needed information.

The student periodically repeated the information back to the client for confirmation that the student's interpretation of what the client said or meant is correct.

The student was able to direct the history taking dialogue to obtain the information in a timely manner (i.e. didn't allow the conversation to wander too far from the goal of getting a complete and accurate history).

The student was able to establish a working rapport with the client. The student conducted the history interview in a courteous and professional manner.

The student was able to gauge the amount of history needed, based on the critical status of the patient.

The student accurately recorded the history obtained from the client in sufficient detail to convey all the information needed by the veterinarian.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task verification form for Obtain a History Prior to Anesthesia task, signed by the clinical mentorship supervisor.
2. A video that clearly shows the student obtaining a history as defined in the above criteria for this task.
3. One written record of the history obtained in the video.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

Medical History

Client: _____ Patient: _____

Date: _____

Reason for general anesthesia: _____

History: _____

History obtained by: _____
Student Name Printed

Student signature

2. PREANESTHETIC EVALUATION OF THE PATIENT FOR ANESTHESIA

Goal: The student will evaluate the patient prior to premedication to ensure the patient is ready for anesthesia.

Description: The student will review the patient chart, pertinent lab work, complete a brief physical exam and review the procedure to be performed to ensure everything is prepared for premedication of the patient. This will also allow the student to prepare for potential emergencies or special patient considerations prior to general anesthesia.

Criteria: The student identified the patient's chart and reviewed it to ensure the proper blood work was performed as defined by the practice standard operating procedure. The veterinarian was consulted about the blood work or other laboratory results prior to premedication.

The student performed a pre-operative TPR, CRT, MMC, and auscultated the heart prior to administering any anesthetic premedications agents. Any abnormalities were brought to the attention of the veterinarian.

The student reviewed the procedure to be performed, the patient's condition and prepared accordingly for premedication.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification form for the Patient Prior to Premedication skill, signed by the clinical mentorship supervisor.
2. One video submission showing the student evaluating the patient as defined in the criteria. Clear verbalization of process should occur throughout the videoed sequence. The student will also submit a copy of the anesthetic record for the patient being videoed. This record will include TPR, signalment, procedure and agents with doses being administered. If blood work was ordered, those results should accompany the anesthetic record.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

3. PRE-ANESTHETIC PREPARATION OF THE ANESTHETIC MACHINE

Goal: To prepare an anesthetic machine for use on a patient receiving inhalation anesthesia.

Description: The student will prepare the anesthetic machine for use on a patient that is to receive inhalation anesthesia. This will be done prior to the premedication of the patient.

Criteria: The student checked the main oxygen source to verify there was enough oxygen to complete the procedure.

The student turned the oxygen on and verified the oxygen pressure gauge was working and the flow meter was functioning by turning on the flow meter temporarily to watch the ball move to the desired oxygen flow.

The student checked the soda lime canister to ensure the granules were fresh according to the practice standard operating procedure.

The student checked the vaporizer to make sure there was inhalant agent in the vaporizer and that it was at least half full and the dial moved smoothly.

The student attached the proper breathing system and breathing bag for the patient being anesthetized.

The student traced the flow from the source, to the patient, from the patient and back to the scavenge system to ensure all connections were correctly assembled, narrating with correct names for all parts of the machine.

The student performed a low-pressure leak test to ensure all connections were secure and no leaking of gas would occur.

The student opened the pop-off valve to ensure it was not stuck or closed prior to anesthesia.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification form for Pre-anesthetic Preparation of Anesthetic Machine skill, signed by clinical mentorship supervisor.
2. One video submission. The student will show close up views of the gauges during checking so the instructor can verify no leaks were present. The student should also provide a narrative of what they are doing while videoing.
3. Written SOP for the clinic for soda lime maintenance.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

4. PREPARATION OF SUPPLIES PRIOR TO GENERAL INHALANT ANESTHESIA

Goal: To prepare anesthetic supplies prior to general anesthesia.

Description: The student will prepare all supplies needed for general inhalant anesthesia to ensure induction and maintenance of anesthesia goes smoothly.

Criteria: The student chose at least two endotracheal tubes of appropriate size for the patient to be anesthetized, checked the cuffs for leaks, and placed the tubes near the induction area.

The student placed a syringe near the endotracheal tubes for use in filling the cuff after intubation.

The student placed a syringe of heparinized saline for use with this patient at or near the induction site to use in verifying intravenous catheter patency.

The student provided ophthalmic lubricating ointment at or near the induction area to lubricate the eye after induction.

The student calculated oxygen flow rate prior to induction.

The student had a stethoscope and other monitoring devices (depending on practice standard operating procedure) ready for use at the induction area and verified they were in working order.

The student located and made others aware of the location of the emergency supplies in case they were needed during the procedure.

The student calculated and set up intravenous fluids with an administration set at the induction area for use during anesthesia.

The student prepared the premedication agents.

The student prepared the anesthetic induction agent so it was ready to administer at time of induction.

The student prepared the anesthesia record and placed it at the area for induction.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification form for Preparation of Supplies Prior to General Inhalant Anesthesia skill, signed by clinical mentorship supervisor.
2. One video submission showing the student preparing the supplies. The video should highlight the area that will be used for induction and clearly show all of the supplies mentioned in the criteria. A narrative should be provided while videoing. The video should include a close up on the checking of endotracheal tube cuff.
3. Written calculation of oxygen flow rate for this patient.

4. Written calculation of IV fluid rate for this patient.
5. Written calculation of premedication and induction agents for this patient.
6. Written SOP for the clinic for monitoring devices used during anesthesia.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

5. INDUCTION OF ANESTHESIA

- Goal:** To induce a patient using an injectable anesthetic agent to facilitate intubation.
- Description:** The student will use one of the approved induction agents to induce a state of general anesthesia facilitating intubation.
- NOTE:** *This task description ends prior to intubation. Actual videotaping and performing this task will include intubation. It is recommended you read this and the intubation tasks together before performing them.*
- Criteria:**
- The student, using a dose syringe, flushed the cheek pouches of the patient's mouth to remove any debris.
 - The student verified that the amount of premedication agents drawn up matched calculations.
 - The student verified that the amount of induction agent drawn up matched calculations.
 - The student removed any air bubbles in the syringe or primed the IV line through which the agents will be given.
 - The student flushed the patient's catheter to ensure its patency.
 - The student administered the preanesthetic agent and flushed the catheter with heparinized saline.
 - The student waited for the preanesthetic agent to fully affect the patient before administration of the induction agent(s).
 - While waiting for preanesthetic agent to affect the patient, the student and DVM discussed with assistants about the role of each person as the patient is induced and stressed the importance of safety for the staff and the patient.
 - When the preanesthetic agent had enough time to affect the patient, the student administered the induction agent(s) in the manner appropriate for the agent(s) used.
 - As the induction agent(s) were administered, the student and assistants controlled the patient's descent to the ground or floor.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification form for Induction by Induction of Anesthesia skill, signed by the clinical mentorship supervisor.
2. Video submission of the following: Clear and detailed video of all the criteria for the task with narration for each step as they are completed.
3. Written SOP of pre-anesthetic and induction agent administration.

INDUCTION OF ANESTHESIA

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

6. EQUINE INTUBATION

Goal: The student will intubate an equine patient without injury to the trachea or other oral structures.

Description: The student will intubate an equine patient after induction of anesthesia and verify correct placement of the endotracheal tube.

Criteria: After induction, the student placed the patient in lateral recumbency.

The student positioned themselves on the ventral side of the patient's head.

The student extended the head and neck to facilitate intubation.

The student inserted a mouth gag (if desired).

The student instructed the assistant to grasp the upper jaw to facilitate head extension during intubation.

The student grasped the tongue and pulled it out laterally with the hand nearest the patient.

The student with the endotracheal tube in the hand away from the patient inserted the tube into the patient's oral cavity.

If the student met resistance when attempting to insert the tube into the arytenoids, the student pulled the tube back slightly, rotated it a small amount and re-advanced the tube.

The student passed the tube through arytenoids and into the trachea.

The student filled the cuff with air to seal the tube in the trachea.

The student instructed an assistant to compress the chest.

The student clearly felt air exiting the patient when the chest was compressed.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification form for Equine Intubation skill, signed by the clinical mentorship supervisor.
2. One video showing equine intubation. The video should contain all steps outlined in the criteria.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

7. MAINTENANCE AND MONITORING OF GENERAL ANESTHESIA

- Goal:** The student will maintain a state of general anesthesia while monitoring the patient's vital signs, reflexes and overall depth of anesthesia for a period of at least 20-30 minutes. The student's goal is to keep parameters within the normal limits for the particular breed/species and to minimize patient discomfort during the procedure.
- Description:** Following induction and intubation of the patient, the student will monitor the patient's gas and oxygen concentrations (if appropriate), vital signs and reflexes and maintain those values within normal limits. The anesthetic episode should continue for a minimum of 20-30 minutes.
- Criteria:**
- The student positioned the patient so the surgical field was available to the veterinarian.
 - The student adequately padded the patient to prevent any myopathies or neuropathies from occurring.
 - The student set the oxygen flow rate (if using inhalation anesthesia) according to the patient's weight and requirement based on the breathing system.
 - The student turned the isoflurane vaporizer to 3-5% based on the patient's response to the induction agent.
 - The student verified the patient was breathing and obtained a heart rate before proceeding further to ensure the patient was stable after induction and intubation.
 - The student attached the ECG monitor (or appropriate alternative) according to the manufacturer's instructions).
 - The student attached any other monitoring tools that were available (pulse oximetry, airway monitor, etc.)
 - The student attached intravenous fluids to the catheter and set the rate for surgical maintenance as ordered by the veterinarian.
 - The student monitored heart rate, respiratory rate, gas concentration and fluid volume administered (as well as other parameters being monitored) and recorded the values on the anesthesia record every 5 minutes. The student brought abnormal readings to the attention of the veterinarian.
 - The student checked the patient's reflexes to ensure the patient was neither too deep nor too light and brought abnormal responses to the attention of the veterinarian.
 - The student monitored the patient's respiratory function by observing the rebreathing bag to count the rate and observing chest movement to ensure adequate depth of each breath.
 - The student maintained the gas concentration at the lowest level possible to achieve general anesthesia without allowing the animal to experience discomfort.
 - The student turned down the anesthetic near the end of the procedure but waited to turn it off completely until the procedure was finished.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification Form for Maintenance and Monitoring of General Anesthesia skill, signed by the clinical mentorship supervisor.
2. One video showing maintenance and monitoring of a patient. The video should contain all steps outlined in the criteria, and should show at least 15 minutes of uninterrupted video of what the student is doing (not the procedure). The student will provide a narrative of the steps performed, including anesthesia machine settings and changes during the procedure.
3. Clinic SOP for monitoring anesthetized patients.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

8. RECOVERY FROM ANESTHESIA

Goal: The student will observe and assist a large animal patient during the recovery process.

Description: The student will observe and assist an experienced person in the recovery of a large animal patient following all the guidelines for the species. It will include the time frame from the discontinuation of the anesthetic agent(s) until the patient is on its feet.

Note: *This task is to be completed with someone who has experience in the recovery of the large animal patient. The student is NOT expected to complete this task without assistance.*

Criteria: The student discontinued administering the anesthetic agent(s) to the patient.

The student disconnected all attached monitoring devices.

The student secured the endotracheal tube according to the facilities SOP.

The student deflated the cuff on the endotracheal tube if necessary for the recovery of the patient.

The student positioned the patient in lateral recumbency for recovery.

The student extended the lower limb cranially.

The student assisted with other positioning and recovery equipment as directed by the experienced person.

The student followed the protocol for patient recovery according to the facilities SOP.

The student noted on the anesthesia record the recovery rating, time into recovery, time to sternal and time to standing.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification Form for Recovery from Anesthesia skill, signed by the clinical mentorship supervisor.
2. A video showing the recovery, a detailed verbal description of the recovery, and any other pertinent patient information.
3. Written description of the recovery SOP for the veterinary facility, including SOP for securing an endotracheal tube

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

9. EQUINE EXTUBATION

Goal: The student will extubate an equine patient without injury to the trachea, other oral structures or themselves.

Description: The student will extubate an equine patient during or immediately following the recovery process.

Criteria: If the ET tube was taped in:
The student extubated when one of the following criteria was met:
The patient was standing
The patient was sternal and chewing
The patient was lateral, quiet, swallowing or chewing

If the ET tube was not taped in:
The student extubated when one of the following criteria was met:
The patient was lateral, quiet and swallowing
The patient was lateral, quiet and chewing

The student positioned themselves in a safe position to remove the ET tube from the patient.

The student removed anything that was used to secure the ET tube.

The student made sure that the cuff was deflated (if appropriate for the patient).

The student removed the tube quickly and efficiently without causing trauma to the patient.

The student clearly felt air exiting the patient's nostrils when the ET tube was removed.

If the patient had trouble breathing once the tube was removed, the student informed the veterinarian, assisted with re-intubation or emergency procedures as directed by the veterinarian.

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification Form for Equine Intubation skill, signed by the clinical mentorship supervisor.
2. One video showing equine extubation. The video should contain all steps outlined in the criteria.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

10. ANESTHESIA RECORD PROCEDURES

Goal: The student will use an anesthetic record (either their own or using the one provided) to record various parameters during general anesthesia. This is a legal document that will be a permanent part of the patient's record.

Description: The student (using only blue or black ink, no pencil) will record various parameters outlined in the criteria during general anesthesia. This record will be part of the patient's permanent record.

Criteria: The anesthetic record included the following information:

- Patient name
- Date
- Signalment
- Weight
- Procedure
- Special precautions (if any) or patient conditions pertinent to anesthesia
- TPR prior to premedication and preferably at rest (that morning)
- Preanesthetics, induction agent and any other agents administered in the pre- or peri-anesthetic period, including the amount and the time it was given
- Heart rate, respiratory rate and gas concentration recorded every 5 minutes on the anesthesia record
- IV fluid amount every 15-30 minutes (total at end of procedure)
- Blood pressure readings and pulse oximetry values recorded every 10 minutes (if using)
- Notes pertaining to major anesthetic or surgical events
- Post-operative pain medication (if given) agent and amount
- Time of beginning and end of anesthesia, procedure and extubation
- Synopsis of patient recovery
- TPR recorded post extubation

The student used black or blue ink

The record was legible and able to be interpreted

Number of Times Task Needs to be Successfully Performed: 1

Materials Submitted for Evaluation and Verification:

1. Task Verification Form for the Anesthesia Record Procedure skill, signed by the clinical mentorship supervisor.
2. The anesthesia records for the patient used in the video. The name or identification of the patient will be announced on the video and should correspond to the anesthetic record.

Student Name: _____

Supervisor Name: _____ RVT, CVT, LVT
DVM, VMD

Patient Name: _____ **Date:** _____

I verify that the student performed this task under my supervision.

Signature of Clinical Mentorship Supervisor: _____

Purdue University VTH Anesthesia Record

Patient Label	Date:		Pre-op Diagnosis:				Page of																
	Weight: kg		lbs		Pre-anesthetic Drug		Dose Admin.	Route	Time														
	PCV	TP	MM				mg																
	GLU	BUN	CRT				mg																
	HR	RR	ASA				mg																
	Temperature		1 2 3 4 5 E		Pre-op Effect	none	slight	moderate	profound	adverse													
	Record Reviewed By:		Procedure		Induction Drug		Dose Admin.	Route	Time														
	Anesthesiologist:						mg																
	Surgeons:						mg																
	Anesthetist:		Relevant Clinical Data				mg																
Time	0	0	1	5	3	0	4	5	0	0	1	5	3	0	4	5	0	0	Tube Size:	mm			
IV Sol.																		System		Agent			
Temperature:																		Rebreathing <input type="checkbox"/>		Sevoflurane <input type="checkbox"/>			
Agent																		Non-rebreathing <input type="checkbox"/>		Isoflurane <input type="checkbox"/>			
Anesthesia																		Mechanical <input type="checkbox"/>		Halothane <input type="checkbox"/>			
Anesth. Depth	light	medium	deep															O2:		L/min			
Codes																		Body Position					
Spon. Resp	S---S															<input type="checkbox"/> Lateral: Right <input type="checkbox"/> Left <input type="checkbox"/>							
Rad.	R---@															<input type="checkbox"/> Sternal		<input type="checkbox"/> Dorsal					
Anesth.	A---@															<input type="checkbox"/> Head Up		<input type="checkbox"/> Head Down					
Surg.	O---@															Monitoring		ECG <input type="checkbox"/> Temp. <input type="checkbox"/> ETCO2 <input type="checkbox"/>					
Cont. Vent.	C---C																	NIBP <input type="checkbox"/> IBP <input type="checkbox"/> SPO2 <input type="checkbox"/>					
SPO2	▲															Total Anesth. Time:							
HR	●															Total Surgery Time:							
RR	o															Extubation Time:							
ETCO2	□															Standing Time:							
B.P. Sys	v															Recovery Score:							
B.P. Diast.	^															Post-op		Total Fluids					
B.P. Mean	+															Temp:							
Blood Gas:	#1	#2	#3	#4	#5	REMARKS:														HR:			
Time:																		RR:					
pH:																		Regional Anesthesia:					
pCO2:																							
pO2:																							
HCO3:																							
tCO2:																							
BE:																							
O2 Sat:																							

Please check box: arterial venous