

## APPLICATION FOR LIVE ANIMAL USE IN TEACHING AT COASTAL ALABAMA COMMUNITY COLLEGE

MARK WITH AN "X" IN THE BOX FOR ONE OF THE FOLLOWING AND TYPE YOUR CURRENT PROTOCOL NUMBER IF NEEDED:

New application                       Amendment of current protocol # \_\_\_\_.  
 Renewal of current protocol # **VET 232 - 1040**

Amendments are required when any significant change occurs in a protocol such as change of study objectives, procedures and pain category, increasing animal number, change of species, use of anesthetic or analgesic agents or methods of euthanasia.

Renewal is required after one year for all protocols that involve species covered by the Animal Welfare Act (AWA) and after three years on all other protocols. All aspects of the protocol need to be carefully reviewed for significant changes and updating. Particular attention needs to be given to numbers of animals needed over the next approval period. New signatures are required by the attending veterinarian, the applicant, and the supervisor.

### 1) NAME OF ACTIVITY, CLASS, OR TRAINING EVENT

Name of activity and associated course number. **Monitoring & Maintenance of anesthesia VET 232**  
**Protocol # VET 232 - 1040**

### 2) APPLICANT NAME

Cathleen B Forester DVM

Office Phone

(251) 580-2273

Dept.

Allied Health-Vet Tech

E-mail address

Cathleen.forester

@

coastalalabama.edu

### 3) GOALS AND SPECIFIC OBJECTIVES OF PROPOSED USE OF LIVE ANIMALS Use language understandable to a non-scientist. One or two paragraphs are usually adequate.

As per AVMA-CVTEA required tasks, each student must demonstrate the ability to accurately assess the following in dogs and cats:

- **monitoring and maintaining general anesthesia**

### 4) PROJECTED START DATE, ANIMAL SPECIES, AND NUMBER NEEDED.

Projected Start Date (If this is a renewal of an existing protocol this date should be the date your current protocol expires).

11/01/17

-Approval for ONE year is granted for species covered under the Federal Animal Welfare Act (dogs, cats, non-human primates, guinea pigs, hamsters, rabbits, wild mammals, and any other animal used in bio-medical research)

Species (common name)

Domestic Dog and cat

Number needed in one year

Approximately 20 representing 1-2 dogs or cats per student.

If renewal - Total number utilized since prior protocol review	
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OR

-Approval for THREE years is granted for those species exempted by the Animal Welfare Act (agricultural species used in agricultural research, birds, commercially bred rats, commercially bred mice, and non-mammal wildlife.)

Species	
Number needed in first year	
Number needed in second year	
Number needed in third year	

**RATIONALE FOR NUMBER OF ANIMALS REQUESTED FOR TEACHING PROTOCOLS:** For example, if numbers are determined by a specific student-to-animal ratio, the choice of the ratio must be justified in writing.

All procedures will be performed by each student. Each animal will be subjected to a maximum of three attempts per procedure per day.

**5) PROCEDURES, PAIN CATEGORY, SPECIES, PERSONS PERFORMING PROCEDURES AND THEIR TRAINING.** Provide a detailed description of all proposed procedures to be conducted on each species, (Example: IV injection in the jugular vein, up to 3 ml, twice a day for six days), the pain category for the procedure, and the personnel who will perform the procedure. For pain categories see USDA/AWA Pain/Distress Categories on the last page of this application.

Species - Procedure – Pain Category – Personnel

**Canine and feline – Monitoring and Maintaining General Anesthesia –C– Vet Tech Lab Instructors, supervisors and students:**

1. Students will observe an animal prior to any manipulation for respiratory rate and character. Animals will not be restrained or otherwise stressed during this observation.
2. The student will set the oxygen flow rate according to the patient’s weight and requirement based on the breathing system
3. The student will adjust the vaporizer setting to 1.5-3% based on the patient’s response to the induction agent.
4. The student will verify that the patient is breathing and record a heart rate before proceeding further to ensure the patient is stable following induction and intubation.
5. The student will place an esophageal stethoscope into the esophagus (if monitored) in order to facilitate quick removal if an emergency arises.
6. The student will attach the ECG (or appropriate alternative) according to the practice standard operating procedure.
7. The student will attach intravenous fluids to the catheter and set the rate for surgical maintenance as ordered by the veterinarian.
8. The student will manually squeeze the rebreathing bag every 1-2 minutes regardless of the patient’s respiratory rate to 15-20 cm H2O.
9. The student will record values including heart rate, respiratory rate, anesthetic gas

concentration and fluid volume administered (as well as any other parameters being monitored) on the anesthesia record every 5 minutes (every 30 minutes for fluids).

10. The student will bring abnormal readings to the attention of the veterinarian.
11. The student will check the patient's reflexes (palpebral, pedal, jaw tone, eye position, depending on accessibility) to ensure the patient was neither too deep nor too light, and bring abnormal responses to the attention of the veterinarian.
12. The student will observe the patient's respiratory function by observing the rebreathing bag to count rate and observe chest excursions to ensure adequate depth of each breath.
13. The student will maintain the anesthetic gas concentration at the lowest level possible to achieve general anesthesia.
14. The student will decrease the anesthetic concentration near the end of the procedure
15. Patients will be closely monitored during all procedures for any signs of pain or distress, if any are noted the procedure will immediately be suspended and the supervising veterinarian will be notified and the patient will be examined. The procedure will be continued only after issues have been resolved.

Specific training of each person for each procedure listed above.

Students will receive lectures on proper procedures and use of necessary equipment prior to performance. All students will demonstrate proper technique using models prior to live animal use.

6) LITERATURE SEARCH FOR PAIN AND DISTRESS REDUCTION

-Replacement of a live animal model with non-living systems; refinement of methods which are less painful or distressful; and reduction in number of animals used should be considered. Include an appropriate conclusion such as "Literature search verified that procedures and methods described in this protocol are currently accepted methods and minimize pain and distress to the animals and that there are no alternatives available for these procedures."

Databases searched	<p><b>NORINA</b></p> <p><a href="http://awic.nal.usda.gov/">http://awic.nal.usda.gov/</a>  <a href="http://www.aphis.usda.gov/animalwelfare">http://www.aphis.usda.gov/animalwelfare</a>  <a href="http://www.animalearn">http://www.animalearn</a>  <a href="http://neavs.org">http://neavs.org</a></p>
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Specific key words used in your search including animal species, pain, stress, distress, alternatives and specific type of research

anesthesia monitoring,

Dates search covered	2000 through November 2013
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Date search completed	01/16/2014
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Conclusion	Several adjunctive audiovisual aids were identified to minimize the amount of handling necessary to achieve proficiency in monitoring an anesthetized patient. Accurate, less invasive methods for the required proficiencies are not available through models or lower species.
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7) JUSTIFICATION OF LIVE ANIMAL USE AND SPECIES SELECTION Alternatives to live animal use must be considered and the lowest appropriate phylogenetic species must be used

All tasks listed for completion by students are required by the CVTEA as described in the Accreditation Policies and Procedures Manual, Appendix I. All tasks performed by students will be under the direct supervision of a licensed veterinary professional.

8) ATTENDING VETERINARIAN

An attending veterinarian must review proposed procedures, especially drug use. He/she must also sign all

protocols. The Veterinarian must have experience with the species for which he/she is responsible. All drugs are to be obtained through or with the approval of the Attending Veterinarian.

- o Anesthesia and Pain Control will be determined by the Attending Veterinarian at the student's various clinical sites

**ANESTHESIA & PAIN CONTROL**

Name and purpose of drug to be given	NA
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Dose	NA
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Route of administration	NA
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Maximum volume	NA
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Frequency of dosing	NA
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If pain alleviation interferes with end point measurements, a complete justification must be included. (i.e. pain Category E Protocols)

NA

Who will perform this procedure	NA
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Specific training of each person for each type of anesthesia/pain control procedure they will perform

NA

**EUTHANASIA/CARCASS DISPOSAL**

AVMA Euthanasia Guidelines must be followed <http://www.avma.org/resources/euthanasia.pdf>. If you don't plan to euthanize animals, you must still be prepared to euthanize an animal because in all protocols, which include manipulations, an animal may be seriously injured and need to be euthanized.

Method of euthanasia to be used (all AVMA methods classified as "conditionally acceptable" must be justified in writing)	NA
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If drugs are used specify the agent	NA
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Dose	NA
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Route of administration	NA
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Maximum Volume	NA
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Justification for "conditionally acceptable" methods

NA

Who will perform euthanasia procedure	NA
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Specific training of each person for each type of euthanasia they will perform

NA

Describe how carcasses will be disposed of (especially applicable to carcasses which have been exposed to recombinant DNA, infectious, toxic or radioactive agents or euthanized with drug)

NA

If animals are not euthanized, what will be their final disposition (especially federal threatened, endangered, or state sensitive species)

All animals utilized for training purposes are owned by the animal care facility and all tasks are performed on site. An MOU is in place regarding all animal use.		
Species	Attending Veterinarian Name	Attending Veterinarian's Email Address
canine and feline	Cathleen B Forester DVM	Cathleen.forester@coastalalabama.edu
Attending Veterinarian Comments Animal use is justified and minimally stressful. Pain should not be present in healthy animals as requested by MOU. Animal numbers are reasonable based upon preliminary enrollment and planning, but may need to be adjusted by addendum based upon first year "pilot" program use.		
Signature Cathleen B Forester DVM		Date 10/05/17

<p>9) SUPPLEMENTAL INFORMATION</p> <p>Please read carefully &amp; place a "Y" or "N" to each question &amp; provide information as required.</p> <p>a. Y__ Is the proposed species covered under the <u>Animal Welfare Act</u>? (i.e. dogs cats, non-human primates, guinea pigs, hamsters, rabbits, wild mammals, and any species used in bio-medical research)</p> <p>b. Y__ Are <u>any animals described in this application privately owned</u>? If yes, contact your department head for discussion of liability issues and the potential need for a signed "Owner's Release Form", and provide written notice to the IACUC.</p> <p>c. N_ Is <u>surgery</u> in which the animal recovers part of this application? If yes, the person performing the procedure must prepare a description of the procedure, and the level of asepsis to be maintained. A record must be made for each procedure performed including anesthesia, analgesia, and pre- and post- operative care.</p> <p>d. N_ Is <u>tail clipping</u>, to obtain blood or tissue sample, of rodents over two weeks of age a part of this application? If yes, a specific written justification must be included with this application.</p>
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<p>10) CERTIFICATION</p> <p><i>I certify that the above is a complete and accurate description of all proposed use of LIVE animals in this activity. I agree that if there are SIGNIFICANT CHANGES from those procedures described in the application I will, prior to the change, prepare a written amendment to this application and receive written IACUC approval prior to implementing the changes.</i></p> <p><i>I assure that students, staff, faculty, or other personnel who perform the procedures described above are QUALIFIED to perform the procedures in a humane and scientifically acceptable manner. I certify that the procedures conducted do not unnecessarily duplicate previous experiments.</i></p>		
Faculty Applicant Name	Cathleen B Forester DVM	
Signature	Date	10/05/17