Curriculum Details

Course Record ID

654

1. Entry Type

Active

Notes and Special Changes

2. Justification

This course is needed for the A.S. in veterinary technology. In order to receive AVMA accreditation, our program needs to teach an anesthesiology and surgical assisting class.

3. Course Alpha

ANSC

4. Course Number

261

5. Course Title (long)

Anesthesiology & Surgical Nursing for Veterinary Technicians

6. Course Title Short

Anesth & Surg Assist Vet Tech

7. Course Credits

5

8. Course Credit Upper Range

0

Repeatable

Will default to 98
9. Course Description

This course will focus on the clinical skills necessary for safe and effective anesthesia and surgery of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and patient monitoring under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care. (3 hours lecture, 6 hours lab).

10. Course Pre-Requisites

Credit for ANSC 152/152L. Credit for or registration in ANSC 251

11. Course Co-Requisites

12. Course Recommended Preparation

13. Contact Hours (lecture, lab, lecture/lab)

3 lecture/6 laboratory

14. Maximum Credits Towards an AA Degree

5

15. Department

Natural Sciences

16. Cross-Listing

17. Course Content

the anesthetic delivery system
Vaporizers
Operation of the anesthetic machine
Care and use of anesthetic equipment
Workplace Safety:
Hazards of waste anesthetic gasses
Compressed gasses
Accidental exposure to injectable agents
Anesthetic Problems & Emergencies:
Reasons why problems occur
Response to emergencies
Types of emergency situations
Problems in the recovery period
Special Anesthetic Techniques:
Local Anesthesia
Controlled ventilation
Neuromuscular blocking agents
Analgesia:
Principles of analgesia
Pharmacologic analgesia
Classes of analgesic drugs
SURGICAL NURSING
Preoperative considerations:
Physical Examination
Consent forms
Administration of pre-op meds
Placement of IV catheters
Intubation
Patient preparation
Surgical site preparations
Proper attire in surgical area
Personal hygiene
Surgical hand scrub
Types of scrubs
solutions
Gowning & Gloving
Cleaning the surgical area
Asepsis
Types of surgical instruments
Surgical needles
Suture materials
Perioperative equipment
Monitoring devices
Power tools
Surgical wound classification
Use of perioperative antibiotics
Intraoperative considerations:
Body temperature
Positioning
Patient monitoring
Analgesia
Surgical wound classification
Use of perioperative antibiotics
Surgical attire
Responsibilities of the surgical assistant
Postoperative Considerations:
Recovery from anesthesia
Extubation
Postoperative monitoring
Anesthetic complications
Surgery complications
Post-op nursing care
Post-op analgesia
Maintenance of Surgical Area & Equipment
Layout of the surgery suite
Equipment cleaning
Cleaning of the surgery room
Types of disinfectants
Rotating & restocking supplies
Instrument Cleaning & Sanitation
Basic cleaning procedures
Pack wrapping
Sterilization
Specialty instrument cleaning
Client Education for Postoperative Care
Discharge instructions
Postanesthesia instructions
Postsurgical instructions

18. Course Competencies

SLO #1: Safely and effectively manage patients during all phases of anesthetic procedures.
Tasks: 1)Calculate dosages of appropriate anesthetic-related drugs
2)Administer anesthetic-related drugs by injection, mask, induction chamber or endotracheal tube
3)Place endotracheal tubes in patients when appropriate
4)Utilize clinical signs and appropriate equipment to monitor patient status in all stages of anesthetic procedures (e.g., esophageal stethoscope, Doppler, pulse oximeter)*
5)Evaluate patient and implement and evaluate pain management protocols
6)Recognize and respond appropriately to patients in compromised states
7)Perform appropriate resuscitation procedures as needed
8)Complete controlled substance log
Decision-making abilities:
Given the characteristics of the anesthetic patient and the procedure being performed, the veterinary technician will work with the veterinarian to:
1)Assess the patient's risk status and determine appropriate anesthetic and perianesthetic protocols to provide effective pain management and maximum anesthetic safety and effectiveness.
2)Choose and utilize appropriate techniques and equipment to accurately and effectively monitor the patient's ongoing status before, during and after anesthesia to provide for adequate anesthesia, analgesia and a safe recovery.
SLO #2: Safely and effectively select, operate and maintain anesthetic delivery equipment and monitoring instruments.
Task: Maintain and operate anesthetic delivery and monitoring equipment, including the following:
Pulse oximeter*
esophageal stethoscope*
Electrocardiograph*
Anesthetic machines*
Endotracheal tubes*
Resuscitation bag*
Scavenging systems*
Oxygen sources*
Respiratory monitors*
Blood pressure monitoring devices*
Laryngoscopes*
Ventilator
defibrillator
Decision-making abilities:
1)Given the characteristics of the anesthetic instruments and equipment being used, the veterinary technician will recognize and respond appropriately to equipment malfunctions or inappropriate equipment setup in order to ensure proper function and provide maximum benefit to the patient.
2)Given the requirements of the anesthetic protocol, the veterinary technician will select, evaluate and adjust equipment to ensure proper function and provide maximum benefit to the patient.
SLO #3:
Understand and integrate all aspects of patient management for common surgical procedures in companion animal species.
Tasks: 1)Demonstrate understanding of routine surgical procedures
and related equipment, including surgeries in these categories: ovariohysterectomy, cesarean section, orthopedic procedures, orchectomy, tail docking, onychectomy, laparotomies, dystocias and prolapsed organs. 2) Properly identify patients and surgical procedures 3) Conduct a thorough patient assessment 4) Organize medical records/consent forms 5) Review pre-operative evaluations 6) Evaluate current patient status 7) Prepare the surgical site using aseptic technique. 8) Position patient for common procedures. 9) Provide surgical assistance: 10) Maintain proper operating room conduct and asepsis 11) Assist with care of exposed tissues and organs 12) Properly pass instruments and supplies 13) Operate and maintain suction and cautery machines 14) Understand the principles of operation and maintenance of fiber optic equipment 15) Keep operative records 16) Perform basic suturing techniques 17) Coordinate anesthesia and pain management with members of the surgical team 18) Provide post-operative care including: pain management, fluid therapy, adequate nutrition, wound management, bandaging, patient discharge instructions, and suture removal. Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will: 1) Use medical records and patient identification methods to assure that the patient and scheduled procedures are correct. 2) Obtain the patient’s vital signs, note any specific physical abnormalities, ensure pre-surgical tests have been completed and report the patient assessment to the veterinarian. 3) Identify the appropriate area of hair to be removed and select appropriate methods to reduce microbial flora on the skin in the area of surgical site in order to decrease the chance of surgical wound contamination. 4) Position the patient appropriately to provide maximum convenience for the surgeon and maximum safety and benefit for the patient. 5) Understand and utilize appropriate aseptic techniques to assist operative personnel in order to provide maximum safety and benefit to the patient. 6) Assure that anesthetic and post-operative pain management protocols are appropriate to provide maximum safety and benefit to the patient. 7) Understand and administer the appropriate methods of post-operative care to assure maximum safety and benefit to the patient. SLO#4: Identify and provide appropriate instruments, supplies and environment to maintain asepsis during surgical procedures. Tasks: 1) Prepare surgical instruments and supplies 2) Prepare gowns, masks, gloves, and drapes 3) Operate and maintain autoclaves 4) Sterilize instruments and supplies using appropriate methods 5) Identify and know proper use for instruments* 6) Identify common suture materials, types, and sizes 7) Provide operating room sanitation and care* 8) Maintain proper operating room conduct and asepsis* 9) Perform post-surgical clean-up (e.g., equipment, instruments, room, proper disposal of hazardous medical waste)* Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will properly select, wrap and sterilize appropriate instruments and supplies and prepare and maintain the surgical environment to ensure maximum safety and benefit to the patient.

19. Assessments, Tasks, and Grading

EXAMINATIONS (400 points total-100 points for each exam). The student will take two exams to demonstrate knowledge and understanding of information presented in the lectures, lab activities, and text readings. QUIZZES (100 points total-10 points for each quiz). The student will take ten quizzes to demonstrate knowledge and understanding of information presented in the lectures, clinical lab activities, and text readings. COURSE TASK CHECKLIST (500 points): Students will be required to demonstrate proficiency in all essential skills, tasks, and decision-making abilities. These will be assessed in clinical skills labs, exam and surgical portions of this course using a Course Task Checklist (CTC). This booklet will be given to students during the first week of the course. It is the students responsibility to always have their CTC with them at all times. Students who lose their CTC or behave in an unsafe manner will receive an F grade and be barred from attending future classes. METHOD OF GRADING: The assignment of points will be according to the following: Exams 400 points Quizzes 100 points Course Task Checklist 500 points TOTAL 1,000 points GRADING SCALE: Total Points Percentage Points Grade 895-1000 90-100 A 795-894 80-89 B 695-794 70-79 C 595-694 60-69 D <595 0-59 F
20. Auxiliary Materials and Content

Students will need access to the following equipment and supplies: 1) Anesthesia Machine 2) Surgical Instruments 3) Monitoring Equipment 4) Surgery Table 5) Surgical Gowns, Gloves, & masks 6) Anesthetics, drugs, & IV fluids This equipment is already in inventory at WCC. Students will also need access to companion animals (cats and dogs) which will be provided by an animal shelter.

21. Additional Activities outside of class and class time

Students will be required to assist with a minimum of 6 anesthetic procedures (including dental cleanings and spay/neuter surgeries). Approximately 3-4 students will assist with each surgery. During the procedures, students will rotate through the following positions: 1) Anesthetist 2) Sterile Nurse 3) Non-sterile Nurse 4) Observer Students will also be required to stay with the animal until it recovers from anesthesia and stabilizes. Lab sections will be offered on days when students don't have any other VT classes (e.g. Fridays).

22. Special Costs connected to the course

Approximate costs for participation in this class is $150 per student (to cover costs of drugs, suture material, and other consumables). This will be recovered by requiring students to purchase a supplies card through the bookstore.

23. What are the Student Learning Outcomes?

Upon successful completion of ANSC 261, the student should be able to demonstrate proficiency with the following: 1) Safely and effectively manage patients during all phases of anesthetic procedures. 2) Safely and effectively select, operate and maintain anesthetic delivery equipment and monitoring instruments. 3) Understand and integrate all aspects of patient management for common surgical procedures in companion animal species. 4) Identify and provide appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.

24. How does the proposal connect to the college's strategic plan?

The program objectives align to the following elements of the college's strategic plan: Outcome 4.1: Contribute to the development of a high-skilled workforce through the establishment of at least one new specific, career-focused degree, certificate or career pathway per year that leads to employment in emerging fields. Outcome 4.2: Establish partnerships with employers to create internships and job placements. Outcome 4.3: Expand the curriculum that prepares students for critical workforce shortage areas. Outcome 4.4: Create internships and service learning opportunities in the community. Outcome 4.5: Promote the knowledge, skills, and opportunities that support current and emerging STEM fields and careers. Outcome 4.6: Increase the number of degrees and certificates awarded in STEM fields.

25. Describe the staff that will be needed

This course will require a Veterinarian Instructor licensed in the state of Hawaii. It may also require a credentialed veterinary technician to assist with certain procedures.
26. Describe the facilities that will be needed, including special rooms

This course will require access to a veterinary treatment room (for patient prep and non-invasive anesthetic procedures (e.g., dental cleanings). We currently have a room in imiloa that should suffice for this (imiloa 103 or 104). Surgical procedures will require a special surgery room (to be created). If this room is not available at the time of course offering, students will be taken to various veterinary clinics to satisfy the surgical assisting portion of the course.

27. Describe any other resources that will be needed

28. How will the staff, facilities, and other resources for the course be secured?

Existing adjunct veterinary faculty may be able to serve as instructors for this course; however, it would be best if we had a FT Veterinarian (a position for this may be released by the Chancellor) as they will need to use their DEA license to purchase anesthetic drugs including controlled substances. An adjunct faculty may be unwilling to do this. The surgery space will be funded by facilities renovation funds, which are currently available.

29. Certificates

30. Connection to the AA degree

AADB

31. Connection between the Course SLOs and the College's General Education Outcomes

Recognize and respond to the wonders and challenges of the natural environment, both biological and physical.

Enter and perform effectively in the work force.

Develop skills that improve personal well-being and enhance professional potential.

32. List any similar classes taught at outside of the UH system

San Juan College: VETT-214: Vet Anesth & Surg Asst III

33. List any similar classes taught at campuses in the UH System.

None

34. How, if at all, is the course intended to count in lieu of a course taught at a four-year campus.

It is not intended to count for a course on a 4-year campus.
35. How, if at all, is the course similar to upper-division courses in the UH System.

It is not similar.

36. How does the course articulate with four-year programs (Gen Ed)?

None

37. List any articulations between this course and any four-year program.

None

End of Proposal
Signatures to New (draft) ANSC261: Anesthesiology & Surgical Assisting for Veterinary Technicians

<table>
<thead>
<tr>
<th>Name</th>
<th>Signatures</th>
<th>Date</th>
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</thead>
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<tr>
<td><strong>Requested by:</strong></td>
<td>Ross Langston</td>
<td>9/20/11</td>
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<tr>
<td><strong>Departmental Review by:</strong></td>
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<tr>
<td>Chair:</td>
<td>INGELIA WHITE</td>
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<tr>
<td><strong>Was the proposal discussed in a department meeting?</strong></td>
<td>yes/no</td>
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<tr>
<td><strong>Division Dean:</strong></td>
<td></td>
<td>9/26/11</td>
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<tr>
<td>IEC (for SLOs)</td>
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<td>9/27/11</td>
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| **Approved by:**      |            |          |
| Curriculum Committee Chair: |            | Kathleen French | 10/11/11  |
| Faculty Senate Chairperson: |            | Ross Langston | 10/18/11  |
| Vice-Chancellor for Academic Affairs | Richard Fulton | 10/20/11  |
| Chancellor             | Doug Dykstra | 11/18/11  |
WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai‘i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O‘ahu’s Ko‘olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

This course will focus on the clinical skills necessary for safe and effective anesthesia and surgery of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and patient monitoring under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures covered include patient monitoring and charting as well as client education for postoperative care. (3 hours lecture, 6 hours lab).

Prerequisite: Credit for ANSC 152/152L. Credit for or registration in ANSC 253.

Activities Required at Scheduled Times Other Than Class Times: Students will be required to participate in a minimum of six anesthetic procedures. These will usually be held during the allotted lab period, but they may also take place during evenings or on weekends. A schedule of procedures will be posted during the third week of class. Students will be able to choose the dates and times that best fit their schedule.

STUDENT LEARNING OUTCOMES

Upon successful completion of ANSC 261, the student should be able to demonstrate proficiency with the following:

1) Safely and effectively manage patients during all phases of anesthetic procedures.

2) Safely and effectively select, operate and maintain anesthetic delivery equipment and monitoring instruments.

3) Understand and integrate all aspects of patient management for common surgical procedures in companion animal species.

4) Identify and provide appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.
COURSE CONTENT

The following topics related to anesthesia and surgical assisting will be covered in the lecture and/or clinical laboratory portions of this course:

ANESTHESIA

Preanesthetic Period:
- Patient Evaluation
- Selection of anesthetic protocols
- Preanesthetic patient care
- Intravenous catheterization
- Preanesthetic agents
- Components of the anesthetic delivery system
- Vaporizers
- Operation of the anesthetic machine
- Care and use of anesthetic equipment

General Anesthesia (GA):
- Definition of GA
- Components of GA
- Safety
- Anesthetic stages & planes
- Induction techniques
- Endotracheal intubation
- Maintenance of anesthesia
- Patient monitoring
- Patient positioning
- Stages of recovery
- Hazards of waste anesthetic gasses
- Compressed gasses
- Accidental exposure to injectable agents

Anesthetic Problems & Emergencies:
- Reasons why problems occur
- Response to emergencies
- Types of emergencies situations
- Problems in the recovery period

Special Anesthetic Techniques:
- Local Anesthesia
- Controlled ventilation
- Neuromuscular blocking agents

Analgies:
- Principles of analgesia
- Pharmacologic analgesia
- Classes of analgesic drugs

Anesthetic Agents & Techniques:
- Routes of administration
- Injectable anesthetics
- Inhalation anesthetics
- Postanesthetic agents

Anesthetic Equipment:
- Endotracheal tubes
- Anesthetic machines
- Surgical hand scrub
- Types of scrubs solutions
- Gowning & Gloving
- Cleaning the surgical area
- Asepsis
- Types of surgical instruments
- Surgical needles
- Suture materials
- Perioperative equipment
- Monitoring devices
- Power tools

SURGICAL NURSING

Preoperative considerations:
- Physical Examination
- Consent forms
- Administration of pre-op meds
- Placement of IV catheters
- Intubation
- Patient preparation
- Surgical site preparations
- Proper attire in surgical area
- Personal hygiene
- Surgical wound classification
- Use of perioperative antibiotics

**Intraoperative considerations:**
- Body temperature
- Positioning
- Patient monitoring
- Analgesia
- Surgical wound classification
- Use of perioperative antibiotics
- Surgical attire
- Responsibilities of the surgical assistant

**Postoperative Considerations:**
- Recovery from anesthesia
- Extubation
- Postoperative monitoring
- Anesthetic complications
- Surgery complications
- Post-op nursing care

- Post-op analgesia

**Maintenance of Surgical Area & Equipment**
- Layout of the surgery suite
- Equipment cleaning
- Cleaning of the surgery room
- Types of disinfectants
- Rotating & restocking supplies

**Instrument Cleaning & Sanitation**
- Basic cleaning procedures
- Pack wrapping
- Sterilization
- Specialty instrument cleaning

**Client Education for Postoperative Care**
- Discharge instructions
- Postanesthesia instructions
- Postsurgical instructions

**COURSE TASKS**

In order to successfully complete the course, the student must demonstrate proficiency with the following skills, tasks and decision-making abilities:

**SLO #1: Safely and effectively manage patients during all phases of anesthetic procedures.**

**Tasks:**
1) Calculate dosages of appropriate anesthetic-related drugs*
2) Administer anesthetic-related drugs by injection, mask, induction chamber or endotracheal tube*
3) Place endotracheal tubes in patients when appropriate*
4) Utilize clinical signs and appropriate equipment to monitor patient status in all stages of anesthetic procedures (e.g., esophageal stethoscope, Doppler, pulse oximeter)*
5) Evaluate patient and implement and evaluate pain management protocols*
6) Recognize and respond appropriately to patients in compromised states*
7) Perform appropriate resuscitation procedures as needed
8) Complete controlled substance log

**Decision-making abilities:** Given the characteristics of the anesthetic patient and the procedure being performed, the veterinary technician will work with the veterinarian to:

1) Assess the patient’s risk status and determine appropriate anesthetic and perianesthetic protocols to provide effective pain management and maximum anesthetic safety and effectiveness.
2) Choose and utilize appropriate techniques and equipment to accurately and effectively monitor the patient’s ongoing status before, during and after anesthesia to provide for adequate anesthesia, analgesia and a safe recovery.
**SLO #2: Safely and effectively select, operate and maintain anesthetic delivery equipment and monitoring instruments.**

**Task:** Maintain and operate anesthetic delivery and monitoring equipment, including the following:
- pulse oximeter*
- esophageal stethoscope*
- electrocardiograph*
- anesthetic machines*
- endotracheal tubes*
- resuscitation bag*
- scavenging systems*
- oxygen sources*
- respiratory monitors*
- blood pressure monitoring devices*
- laryngoscopes*
- ventilator
- defibrillator

**Decision-making abilities:**
1) Given the characteristics of the anesthetic instruments and equipment being used, the veterinary technician will recognize and respond appropriately to equipment malfunctions or inappropriate equipment setup in order to ensure proper function and provide maximum benefit to the patient.
2) Given the requirements of the anesthetic protocol, the veterinary technician will select, evaluate and adjust equipment to ensure proper function and provide maximum benefit to the patient.

**SLO #3: Understand and integrate all aspects of patient management for common surgical procedures in companion animal species.**

**Tasks:**
1) Demonstrate understanding of routine surgical procedures and related equipment, including surgeries in these categories: ovariectomy, cesarean section, orthopedic procedures, orchietomy, tail docking, ophthalmectomy, laparotomy, dystocia and prolapsed organs.
2) Properly identify patients and surgical procedures
3) Conduct a thorough patient assessment
4) Organize medical records/consent forms
5) Review pre-operative evaluations
6) Evaluate current patient status
7) Prepare the surgical site using aseptic technique.
8) Position patient for common procedures.
9) Provide surgical assistance:
10) Maintain proper operating room conduct and asepsis
11) Assist with care of exposed tissues and organs
12) Properly pass instruments and supplies
13) Operate and maintain suction and cautery machines
14) Understand the principles of operation and maintenance of fiber optic equipment
15) Keep operative records
16) Perform basic suturing techniques
17) Coordinate anesthesia and pain management with members of the surgical team
18) Provide post-operative care including: pain management, fluid therapy, adequate nutrition, wound management, bandaging, patient discharge instructions, and suture removal.

**Decision-making abilities:** Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will:
1) Use medical records and patient identification methods to assure that the patient and scheduled procedures are correct.
2) Obtain the patient’s vital signs, note any specific physical abnormalities, ensure pre-surgical tests have been completed and report the patient assessment to the veterinarian.
3) Identify the appropriate area of hair to be removed and select appropriate methods to reduce microbial flora on the skin in the area of surgical site in order to decrease the chance of surgical wound contamination.
4) Position the patient appropriately to provide maximum convenience for the surgeon and maximum safety and benefit for the patient.
5) Understand and utilize appropriate aseptic techniques to assist operative personnel in order to provide maximum safety and benefit to the patient.
6) Assure that anesthetic and post-operative pain management protocols are appropriate to provide maximum safety and benefit to the patient.
7) Understand and administer the appropriate methods of post-operative care to assure maximum safety and benefit to the patient.

**SLO#4: Identify and provide appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.**

Tasks:
1) Prepare surgical instruments and supplies
2) Prepare gowns, masks, gloves, and drapes
3) Operate and maintain autoclaves
4) Sterilize instruments and supplies using appropriate methods
5) Identify and know proper use for instruments
6) Identify common suture materials, types, and sizes
7) Provide operating room sanitation and care
8) Maintain proper operating room conduct and asepsis
9) Perform post-surgical clean-up (e.g., equipment, instruments, room, proper disposal of hazardous medical waste)

**Decision-making abilities:** Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will properly select, wrap and sterilize appropriate instruments and supplies and prepare and maintain the surgical environment to ensure maximum safety and benefit to the patient.

**ASSESSMENT TASKS AND GRADING**

**EXAMINATIONS** (400 points total-100 points for each exam). The student will take two exams to demonstrate knowledge and understanding of information presented in the lectures, lab activities, and text readings.

**QUIZZES** (100 points total-10 points for each quiz). The student will take ten quizzes to demonstrate knowledge and understanding of information presented in the lectures, clinical lab activities, and text readings.

**COURSE TASK CHECKLIST** (500 points): Students will be required to demonstrate proficiency in all essential skills, tasks, and decision-making abilities. These will be assessed in clinical skills labs, exam and surgical portions of this course using a Course Task Checklist (CTC). This booklet will be given to students during the first week of the course. It is the students responsibility to always have their CTC with them at all times. **Students who lose their CTC or behave in an unsafe manner will receive an “F” grade and be barred from attending future classes.**

**METHOD OF GRADING:**
The assignment of points will be according to the following:

<table>
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<tr>
<td>Quizzes</td>
<td>100 points</td>
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<tr>
<td>Course Task Checklist</td>
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<td><strong>TOTAL</strong></td>
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**GRADING SCALE:**

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<td>595-694</td>
<td>60-69</td>
<td>D</td>
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Grades may be curved at the instructor’s discretion; however, the student should use the above grading scale to evaluate their performance throughout the class. If you miss an examination or laboratory because of an illness or legitimate emergency, you must contact the instructor within 48 hours to arrange a time to take a make-up exam. The instructor may request that the student present evidence of the illness or emergency that caused the student to miss the exam. If the student misses an exam for any other reason, the student may be prohibited from taking a make-up exam, thus failing to receive any points for the missed exam. While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different. **No retests will be given for any reason.**

**ACADEMIC DISHONESTY**

**Students involved in academic dishonesty will receive an "F" grade for the course.**

Academic dishonesty includes cheating on exams and plagiarism. See the 2011-2012 course catalog for a description of the College’s policies concerning academic dishonesty.

**LEARNING RESOURCES**

**Textbooks:**


**Lecture Outlines:** Powerpoint outlines will be given out at the beginning of each lecture.

**Laulima:** Your instructor has created a Laulima website to accompany this course. This website contains lecture outlines, copies of course forms and syllabi, and links to on-line learning resources. Students enrolled in ANSC 261 are automatically enrolled in the ANSC 261 Laulima website. To access, go to https://laulima.hawaii.edu/portal. Login using your UH username and password and click on ANSC 261.

**ADDITIONAL INFORMATION**

**STUDENT RESPONSIBILITIES**

The student is expected to attend all assigned lectures and labs and participate in all course activities. Students must come to class wearing appropriate attire (usually veterinary scrubs with close-toed shoes). Students who fail to do so may be barred from class and will receive an “F” grade for the day. Any changes in the course schedule, such as examination dates, deadlines, etc., will be announced ahead of time on the course website. It is the student’s responsibility to be informed about deadlines critical to making registration changes (e.g., last day for making an official withdrawal).

**ACCOMMODATION FOR STUDENTS WITH DISABILITIES**

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Akoakoa 213 for more information.
# ANSC 261 Lecture Schedule Fall, 2012

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<th>Week</th>
<th>Date</th>
<th>Topics</th>
<th>Text Reading</th>
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<tr>
<td>1</td>
<td>M 8/20</td>
<td>Course Introduction &amp; Overview</td>
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<td>Components &amp; Stages of General Anesthesia</td>
<td>M&amp;H: 51-58</td>
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<tr>
<td>3</td>
<td>M 9/3</td>
<td>Induction &amp; Maintenance</td>
<td>M&amp;H: 59-118</td>
</tr>
<tr>
<td></td>
<td>W 9/5</td>
<td>Injectable Anesthetic Agents</td>
<td>M&amp;H: 119-141</td>
</tr>
<tr>
<td>4</td>
<td>M 9/10</td>
<td>Inhalation Anesthetics &amp; Postanesthetic agents</td>
<td>M&amp;H: 142-158</td>
</tr>
<tr>
<td></td>
<td>W 9/12</td>
<td>Anesthetic Equipment</td>
<td>M&amp;H: 165-207</td>
</tr>
<tr>
<td>5</td>
<td>M 9/17</td>
<td>Anesthetic Equipment (Cont’d)</td>
<td>M&amp;H: 165-207</td>
</tr>
<tr>
<td></td>
<td>W 9/19</td>
<td><strong>Exam #1</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>W 9/26</td>
<td>Anesthetic Problems &amp; Emergencies</td>
<td>M&amp;H: 238-276</td>
</tr>
<tr>
<td>7</td>
<td>M 10/1</td>
<td>Local Anesthesia &amp; NMB agents</td>
<td>M&amp;H: 286-307</td>
</tr>
<tr>
<td></td>
<td>W 10/3</td>
<td>Principles of Analgesia</td>
<td>M&amp;H: 315-325</td>
</tr>
<tr>
<td>8</td>
<td>M 10/8</td>
<td>Classes of Analgesic Drugs</td>
<td>M&amp;H: 326-345</td>
</tr>
<tr>
<td></td>
<td>W 10/10</td>
<td>Anesthesia of rodents</td>
<td>M&amp;H: 350-384</td>
</tr>
<tr>
<td>9</td>
<td>M 10/15</td>
<td>Anesthesia of Large Animals</td>
<td>M&amp;H: 387-416</td>
</tr>
<tr>
<td></td>
<td>W 10/17</td>
<td><strong>Exam #2</strong></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>M 10/22</td>
<td>Preoperative Room Considerations</td>
<td>T: 1-40</td>
</tr>
<tr>
<td></td>
<td>W 10/24</td>
<td>Surgical Instruments</td>
<td>Handout</td>
</tr>
<tr>
<td>11</td>
<td>M 10/29</td>
<td>Preoperative Patient Considerations</td>
<td>T: 41-84</td>
</tr>
<tr>
<td></td>
<td>W 10/31</td>
<td>Operating Room Personnel</td>
<td>T: 85-100</td>
</tr>
<tr>
<td>12</td>
<td>M 11/5</td>
<td>Asepsis &amp; Disinfectant Agents</td>
<td>T: 101-106</td>
</tr>
<tr>
<td></td>
<td>W 11/7</td>
<td>Patient Monitoring</td>
<td>T: 107-120</td>
</tr>
<tr>
<td>13</td>
<td>M 11/12</td>
<td>Surgical Assisting Duties</td>
<td>T: 121-131</td>
</tr>
<tr>
<td></td>
<td>W 11/14</td>
<td><strong>Exam #3</strong></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>M 11/19</td>
<td>Surgical Procedures</td>
<td>T: 132-229</td>
</tr>
<tr>
<td></td>
<td>W 11/21</td>
<td>Surgical Procedures (Cont’d)</td>
<td>T: 132-229</td>
</tr>
<tr>
<td>15</td>
<td>M 11/26</td>
<td>The Postoperative Patient</td>
<td>T: 229-253</td>
</tr>
<tr>
<td></td>
<td>W 11/28</td>
<td>Postoperative Surgery Room &amp; Equipment</td>
<td>T: 254-272</td>
</tr>
<tr>
<td>16</td>
<td>M 12/3</td>
<td>Client Education for Postoperative Care</td>
<td>T: 273-284</td>
</tr>
<tr>
<td></td>
<td>W 12/5</td>
<td>The Technicians Role in Pain Management</td>
<td>T: 285-294</td>
</tr>
</tbody>
</table>

**Exam 4:** See Final Exam Schedule
<table>
<thead>
<tr>
<th>ANSC 261 COURSE TASK CHECKLIST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. ANESTHESIA</strong></td>
</tr>
<tr>
<td>Patient management</td>
</tr>
<tr>
<td>Skill: Safely and effectively manage patients in all phases of anesthetic procedures.</td>
</tr>
<tr>
<td>Tasks:</td>
</tr>
<tr>
<td>Calculate dosages of appropriate anesthetic-related drugs*</td>
</tr>
<tr>
<td>Administer anesthetic-related drugs by injection, mask, induction chamber or endotracheal tube*</td>
</tr>
<tr>
<td>Place endotracheal tubes in patients when appropriate*</td>
</tr>
<tr>
<td>Utilize clinical signs and appropriate equipment to monitor patient status in all stages of anesthetic procedures (e.g., esophageal stethoscope, Doppler, pulse oximeter)*</td>
</tr>
<tr>
<td>Evaluate patient and implement and evaluate pain management protocols*</td>
</tr>
<tr>
<td>Recognize and respond appropriately to patients in compromised states*</td>
</tr>
<tr>
<td>Perform appropriate resuscitation procedures as needed (e.g., calculate and administer appropriate anesthetic antagonists and emergency drugs as directed)*</td>
</tr>
<tr>
<td>Complete controlled substance log* (does not need to be official controlled substance log; mock logs may be utilized)</td>
</tr>
<tr>
<td>Decision-making abilities: Given the characteristics of the anesthetic patient and the procedure being performed, the veterinary technician will work with the veterinarian to:</td>
</tr>
<tr>
<td>1. Assess the patient’s risk status and determine appropriate anesthetic and perianesthetic protocols to provide effective pain management and maximum anesthetic safety and effectiveness.</td>
</tr>
<tr>
<td>2. Choose and utilize appropriate techniques and equipment to accurately and effectively monitor the patient’s ongoing status before, during and after anesthesia to provide for adequate anesthesia, analgesia and a safe recovery.</td>
</tr>
<tr>
<td><strong>Equipment/facility management</strong></td>
</tr>
<tr>
<td>Skill: Safely and effectively select, utilize and maintain anesthetic delivery and monitoring instruments and equipment.</td>
</tr>
<tr>
<td>Tasks:</td>
</tr>
<tr>
<td>Maintain and operate anesthetic delivery and monitoring equipment:</td>
</tr>
<tr>
<td>pulse oximeter*</td>
</tr>
<tr>
<td>esophageal stethoscope*</td>
</tr>
<tr>
<td>electrocardiograph (e.g., recognize abnormal rhythms/audible sounds, properly apply leads)*</td>
</tr>
<tr>
<td>anesthetic machines, including rebreathing systems, non-rebreathing systems induction chambers and masks*</td>
</tr>
<tr>
<td>endotracheal tubes*</td>
</tr>
<tr>
<td>resuscitation bag*</td>
</tr>
<tr>
<td>scavenging systems*</td>
</tr>
<tr>
<td>oxygen sources*</td>
</tr>
<tr>
<td>respiratory monitors*</td>
</tr>
<tr>
<td>blood pressure monitoring devices*</td>
</tr>
<tr>
<td>laryngoscopes*</td>
</tr>
<tr>
<td>ventilator</td>
</tr>
<tr>
<td>defibrillator</td>
</tr>
<tr>
<td>Decision-making abilities:</td>
</tr>
<tr>
<td>1. Given the characteristics of the anesthetic instruments and equipment being used, the veterinary technician will recognize and respond appropriately to equipment malfunctions or inappropriate equipment setup in order to ensure proper function and provide maximum benefit to the patient.</td>
</tr>
</tbody>
</table>
2. Given the requirements of the anesthetic protocol, the veterinary technician will select, evaluate and adjust equipment to ensure proper function and provide maximum benefit to the patient.

# ANSC 261 COURSE TASK CHECKLIST

## II. SURGICAL NURSING

<table>
<thead>
<tr>
<th>Task</th>
<th>Instructor Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is essential that technicians have knowledge of routine surgical procedures and related equipment, including surgeries in these categories:</td>
<td>#1</td>
</tr>
<tr>
<td>ovariohysterectomy - dogs and cats*</td>
<td></td>
</tr>
<tr>
<td>cesarean section - all common species*</td>
<td></td>
</tr>
<tr>
<td>orthopedic procedures*</td>
<td></td>
</tr>
<tr>
<td>orchietomy - all common species*</td>
<td></td>
</tr>
<tr>
<td>tail docking*</td>
<td></td>
</tr>
<tr>
<td>onychectomy - dogs and cats*</td>
<td></td>
</tr>
<tr>
<td>laparotomies - all common species*</td>
<td></td>
</tr>
<tr>
<td>dystocias in common species*</td>
<td></td>
</tr>
<tr>
<td>dehorning - cattle and goats*</td>
<td></td>
</tr>
<tr>
<td>prolapsed organs - common types, species, and incidence*</td>
<td></td>
</tr>
<tr>
<td>Students must have participated in surgeries in these categories:</td>
<td></td>
</tr>
<tr>
<td>ovariohysterectomy - dog*, cat*</td>
<td></td>
</tr>
<tr>
<td>orchietomy - dog*, cat* and other common species</td>
<td></td>
</tr>
</tbody>
</table>

### Patient management

**Skill:** Understand and integrate all aspects of patient management for common surgical procedures in a variety of animal species.

**Task:**

Properly identify patients and surgical procedures*

**Decision-making abilities:** Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will use medical records and patient identification methods to assure that the patient and scheduled procedures are correct.

**Task:**

Patient assessment

organize medical records/consent forms*

review pre-operative evaluation*

evaluate current patient status*

coordinate anesthesia*

**Decision-making abilities:** Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will obtain the patient's vital signs, note any specific physical abnormalities, ensure pre-surgical tests have been completed and report the patient assessment to the veterinarian.

**Task:**

Prepare surgical site using appropriate aseptic techniques*

**Decision-making abilities:** Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will identify the appropriate area of hair to be removed and select appropriate methods to reduce microbial flora on the skin in the area of surgical site in order to decrease the chance of surgical wound contamination.

**Task:**

Position patient for common procedures*
Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will position the patient appropriately to provide maximum convenience for the surgeon and maximum safety and benefit for the patient.

II. SURGICAL NURSING

<table>
<thead>
<tr>
<th>Task:</th>
<th>Instructor Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide surgical assistance:</td>
<td></td>
</tr>
<tr>
<td>maintain proper operating room conduct and asepsis*</td>
<td></td>
</tr>
<tr>
<td>assist with care of exposed tissues and organs*</td>
<td></td>
</tr>
<tr>
<td>properly pass instruments and supplies*</td>
<td></td>
</tr>
<tr>
<td>operate and maintain suction and cautery machines*</td>
<td></td>
</tr>
<tr>
<td>understand the principles of operation and maintenance of fiber optic equipment*</td>
<td></td>
</tr>
<tr>
<td>keep operative records*</td>
<td></td>
</tr>
<tr>
<td>perform basic suturing techniques</td>
<td></td>
</tr>
</tbody>
</table>

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will understand and utilize appropriate aseptic techniques to assist operative personnel in order to provide maximum safety and benefit to the patient.

<table>
<thead>
<tr>
<th>Task:</th>
<th>Instructor Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinate pain management with the anesthesia/surgical team*</td>
<td></td>
</tr>
</tbody>
</table>

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will assure that anesthetic and post-operative pain management protocols are appropriate to provide maximum safety and benefit to the patient.

<table>
<thead>
<tr>
<th>Task:</th>
<th>Instructor Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide post-operative care:</td>
<td></td>
</tr>
<tr>
<td>pain management*</td>
<td></td>
</tr>
<tr>
<td>fluid therapy*</td>
<td></td>
</tr>
<tr>
<td>adequate nutrition*</td>
<td></td>
</tr>
<tr>
<td>wound management*</td>
<td></td>
</tr>
<tr>
<td>bandaging*</td>
<td></td>
</tr>
<tr>
<td>discharge instructions*</td>
<td></td>
</tr>
<tr>
<td>suture removal*</td>
<td></td>
</tr>
</tbody>
</table>

Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will understand and administer the appropriate methods of post-operative care to assure maximum safety and benefit to the patient.

Procedural management

Skill: Understand and provide the appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.

<table>
<thead>
<tr>
<th>Tasks:</th>
<th>Instructor Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare surgical instruments and supplies*</td>
<td></td>
</tr>
<tr>
<td>Prepare gowns, masks, gloves, and drapes*</td>
<td></td>
</tr>
<tr>
<td>Operate and maintain autoclaves*</td>
<td></td>
</tr>
<tr>
<td>Sterilize instruments and supplies using appropriate methods*</td>
<td></td>
</tr>
<tr>
<td>Identify and know proper use for instruments*</td>
<td></td>
</tr>
<tr>
<td>Identify common suture materials, types, and sizes*</td>
<td></td>
</tr>
<tr>
<td>Provide operating room sanitation and care*</td>
<td></td>
</tr>
<tr>
<td>Maintain proper operating room conduct and asepsis*</td>
<td></td>
</tr>
<tr>
<td>Perform post-surgical clean-up (e.g., equipment, instruments, room, proper disposal of hazardous medical waste)*</td>
<td></td>
</tr>
<tr>
<td>Decision-making abilities: Given the characteristics of the patient and the surgical procedure to be performed, the veterinary technician will properly select, wrap and sterilize appropriate instruments and supplies and prepare and maintain the surgical environment to ensure maximum safety and benefit to the patient.</td>
<td></td>
</tr>
</tbody>
</table>