

Section 1 General Information

5.1	Semester	1
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5.2 Number of Students Allowed Approximately 6 Students

6. Prerequisites

Not requested

7. Co-requisites

Not requested

8. Date of Preparation/Latest Revision of the Course Specifications

Day 24 Month June Year 2026

Section 2 Course Goals and Course Description

1. Course Goals

Development of learners in professional skills for veterinary anesthesia in particular fields of general and local anesthesia, pain assessment and management, anesthesia monitoring, pre- and intraoperative evaluation, and postoperative care based on the professional ethics and morals.

2. Course Description

(In Thai) ทักษะปฏิบัติทางวิสัญญีและการระงับปวดทางการสัตวแพทย์ อุปกรณ์และเครื่องมือยาสลบ การประเมินสภาพสัตว์ก่อนการผ่าตัด การให้ยาสลบและการชักนำการสลบ การติดตามสัญญาณชีพ การจัดการระยะฟื้นจากยาสลบ การจัดการกับภาวะฉุกเฉินและภาวะแทรกซ้อน จรรยาบรรณและมาตรฐานแห่งวิชาชีพ

(In English) Clinical skills in veterinary anesthesia and analgesia; anesthetic equipment; preoperative assessment, premedication and induction; anesthetic monitoring, recovery management; anesthetic emergencies and complications; ethics and professional standard

Section 3

Course Objectives, Course-level Learning Outcomes and Course Implementation

1. Course Objectives

This course actively develops the students' knowledge, hands-on clinical skills, technical competencies, professional responsibility, and essential attributes through intensive practical training. Upon completion of this course, students will achieve the following competencies:

A. Knowledge: Students will acquire deep theoretical and practical insights into small animal anesthesia and analgesia, encompassing:

- Factual & Conceptual Knowledge: Mastery of the pharmacology of general and local anesthetic agents, analgesic drugs, and the underlying physiological principles of patient monitoring and pain pathways.

- Procedural Knowledge: Comprehensive, step-by-step understanding of clinical protocols for multi-modal pain assessment, comprehensive vital signs monitoring, anesthetic troubleshooting, and postoperative rehabilitation management.

B. Skills: The course heavily emphasizes active clinical execution and technical proficiency across the following domains:

1) Cognitive Domain (Clinical Reasoning)

- Ability to critically analyze a patient's physical status to formulate and adjust individualized anesthetic and analgesic plans.
- Ability to rapidly interpret complex monitoring data and exercise sound clinical judgment to detect and mitigate anesthetic crises.

2) Psychomotor Domain (Intensive Practical & Hands-on Skills)

- Proficiency in performing clinical pain assessment scales and correctly administering precise dosages of general, local anesthetic, and analgesic drugs.
- Hands-on competence in operating anesthesia monitoring equipment and executing advanced monitoring techniques throughout the pre-, intra-, and postoperative periods.
- Technical capability to perform immediate, life-saving corrective interventions when critical signs deviate from normal parameters.
- Practical skills in executing hands-on rehabilitation techniques and recovery monitoring for small animal patients.

3) Affective Domain (Professional Attributes)

- Demonstration of high professional accountability, patient advocacy, and a strict commitment to animal welfare and humane pain management during all surgical procedures.

4) Social Domain (Communication & Collaboration)

- **Communication:** Ability to deliver clear, precise, and timely verbal reports on patient status and anesthetic complications to the surgical team under high-pressure scenarios.
- **Collaboration:** Ability to function fluidly as a skilled team member in an active surgical and anesthesia care unit, demonstrating coordination and shared responsibility for patient safety.

2. Course-level Learning Outcomes: CLOs

On completion of the course, the students will be able to;

- 1) CLO 1 Select the appropriate general and local anesthesia drugs for small animal patients.
- 2) CLO 2 Provide the correction of pain assessment in pre-, intra-, and postoperative surgeries.

- 3) CLO 3 Select the appropriate analgesic drugs for small animal patients in pre-, intra-, and post-operative surgeries
- 4) CLO 4 Understand to monitoring the critical signs in pre-, intra-, and postoperative surgeries.
- 5) CLO 5 Correct the critical signs before the animals become harmful in pre-, intra-, and postoperative surgeries.
- 6) CLO 6 Manage and monitor the animals' rehabilitation.

3. How to organize learning experiences to develop the knowledge or skills stated in number 2 and how to measure the learning outcomes

CLOs	Teaching and learning experience management				Learning outcomes measurements		
	Demonstrate	Practice	discussion	Seminar	In Partici-pate	Rubrics	Practical exam
CLO1		x	x	x	x	x	x
CLO2		x	x	x	x	x	x
CLO3		x	x	x	x	x	x
CLO4	x	x	x	x	x	x	x
CLO5	x	x	x	x	x	x	x
CLO6	x	x	x	x	x	x	x

Section 4 Lesson Plan and Evaluation

1. Lesson Plan

Teaching Period (week)	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice* *		
1	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
2	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
3	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
4	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
5	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
6	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
7	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
8	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
9	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
10	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
11	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
12	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
13	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
14	Small Animals Anesthesia	-	9	Practice	NP,SP,PC,SWT
	Total hours of the entire semester		126		

2. Plan for Assessment of Expected Course-Level Learning Outcomes (CLOs)

2.1 Measurement and Evaluation of learning achievement

A. Formative Assessment

The assessment is performed during the course to measure the progress and development of students' learning by observing the behavior change and improvement of students' behavior and performance. The assessment results will be notified to the students (feedback) so that the students are constantly able to improve themselves. The assessment results are not included with the test scores at the end of the course.

B. Summative Assessment

(1) Tool and weight for measurement and evaluation

Course Learning Outcome	Evaluation Method*				Weight (%)
	Participate	Seminar	Practice examination	Rubric score	
CLO 1 Select the appropriate general and local anesthesia drugs for small animal patients.	0.5	1	5	10.5	17
CLO2 Provide the correction of pain assessment in pre-, intra-, and postoperative surgeries.	0.5	1	5	10.5	17
CLO3 Select the appropriate analgesic drugs for small animal patients in pre-, intra-, and post-operative surgeries.	0.5	1	5	10.5	17
CLO4 Understand to monitoring the critical signs in pre-, intra-, and postoperative surgeries.	0.5	1	5	10.5	17
CLO5 Correct the critical signs before the animals become harmful in pre-, intra-, and post-operative surgeries.	0.5	1	5	9.5	16
CLO6 Manage and monitor the animals' rehabilitation.	0.5	1	5	9.5	16
Total	3	6	30	61	100

(2) Grading Rules

The grading symbols are: A, B+, B, C+, C, D+, D, and F. Students must receive a 'D' grade or above to pass the criteria.

(3) Measurement and Evaluation

The measurement and evaluation use the criteria-based, according to the conditions and methods for academic results evaluation of the Faculty of Veterinary Science, Mahidol University.

2.2 Re-examination (if the course allows any.)

In case that students received an 'F' grade, the course coordinator and the program's Teaching and the program administration committee should, altogether, agreed to allow the students to take the re-examination or extra-course work to pass the course with the following conditions. The minimum score is not less than 45.00. to take to re-examination or extra-course work. Once students took the re-examination (extra-course work) and the course coordinator had considered the students' re-examination/course work to pass the criteria, then the students will receive the 'D' grade. While waiting for the re-examination or extra-course work result, the students' score should be indicated as 'I' grade.

3. Students' Appeal

Should the students have any suspicion or appeals to the teaching and learning activities and the grade assessment, students could make the appeal by filling in the form at MUVS' Academic Affairs. The appeal will be proposed to the course coordinator to consider the request. If the appeal could not be addressed at this point, it will be further process by the program administration committee. In case that the committee suggested further investigation should be done, the appeal will be purposed to the faculty's appealing committee to address the issue.

Section 5 Teaching Resources

1. Required Texts

1. Keating S, Kerr C, McDonell W, Valverde A, Johnson R, Knych H, Edginton A. Effects of Acepromazine or Dexmedetomidine on Fentanyl Disposition in Dogs During Recovery from Isoflurane Anesthesia. *Vet Anaesth Analg*. 2015. (doi: 10.1111/vaa.12271)
2. Hansen B. Analgesia for The Critically Ill Dog or Cat: an update. *Vet Clin North Am Small Anim Pract*. 2008; 38(6):1353-63.
3. Seymore C, Duke-Novasovski T. BSAVA manual of small animal anesthesia and analgesia. 2nd ed. Cheltenham: Blackwell; 2007.
4. Muir WW, Hubbell AE Handbook of Veterinary Anesthesia. 5th ed. Elsevier; 2012.

2. Suggested Materials

1. Stethoscope

2. Thermometer
3. Other Resources (if any)

Section 6 Evaluation and Improvement of Course Implementation

1. Analysis and Evaluation of Course Implementation

A. Data for Analysis

Teaching and learning efficiency evaluation form

B. Course Effectiveness Evaluation

At the end of each course, it is required for the students to assess the teaching of each instructor based on the following criteria: punctuality, good role model, application of morals and ethics for the instruction, ability to convey knowledge and encourage students to learn, giving opportunities for students to ask questions and to comment during the study.

The overall outcomes of each course will also be assessed by the students for the following issues: the instructor's knowledge and competency, the course's effectiveness, student's satisfaction with the study, and other comments from students. The evaluation is conducted through online platform.

2. Revision Process and Improvement Plan for Course Effectiveness

Prior to each academic year, there are meetings/seminars for the instructors of each course to plan to improve the course's teaching and learning management based on the following information.

- (1) the students' academic performance
- (2) the students' evaluation results
- (3) the instructors' assessment results

3. The self-assessment report of the course

At the end of each academic year, the course coordinators, instructors, the Program Committee, and the Teaching and Learning Development Committee will consider the assessment results and the Learning Outcome for the Course to plan for the improvement of the next academic year.

Appendix

1. Relations between the course and the program

Table 1 Relations between the course and the PLOs

Clinical Skills in Veterinary Anesthesia and Analgesia	Program-Level Learning Outcomes (PLOs)				
	PLO1	PLO2	PLO3	PLO4	PLO5
VSCL767	P	P	P	P	P

Table 2 Relation between CLOs and PLOs

VSCL767	Program-Level Learning Outcomes (PLOs)				
	PLO1	PLO2	PLO3	PLO4	PLO5
CLO 1 Select the appropriate general and local anesthesia drugs for small animal patients.	x				x
CLO 2 Provide the correction of pain assessment in pre-, intra-, and postoperative surgeries.		x		x	
CLO 3 Select the appropriate analgesic drugs for small animal patients in pre-, intra-, and postoperative surgeries.	x			x	x
CLO 4 Understand to monitoring the critical signs in pre-, intra-, and postoperative surgeries.		x	x		
CLO 5 Correct the critical signs before the animals become harmful in pre-, intra-, and postoperative surgeries.		x	x		
CLO 6 Manage and monitor the animals' rehabilitation.		x	x		

3. Relations between the course and Sustainable Development Goals (SDGs)

- ☐ SDG1 No poverty
- ☐ SDG2 Zero Hunger
- ☒ SDG3 Good Health and Well – being
- ☒ SDG4 Quality Education
- ☐ SDG5 Gender Equality
- ☐ SDG6 Clean Water and Sanitation
- ☐ SDG7 Affordable and Clean Energy
- ☐ SDG8 Decent Work and Economic Growth

- ☐ SDG9 Industry, Innovation and Infrastructure
- ☐ SDG10 Reduced Inequalities
- ☐ SDG11 Sustainable Cities and Communities
- ☐ SDG12 Responsible Consumption and Production
- ☐ SDG13 Climate Action
- ☐ SDG14 Life Below Water
- ☐ SDG15 Life on Land
- ☐ SDG16 Peace, Justice and Strong Institutions
- ☐ SDG17 Partnerships for the goals

Course Schedule

VSCL 767 Clinical Skills in Veterinary Soft Tissue Surgery

Semester 1 Academic Year 2026

Day	Morning (8.30-12.00)	Afternoon (13.00-16.30)
Mon	Anesthesia for Oral Surgery (NP)	Anesthesia for Ophthalmology Surgery (NP)
Tue	Anesthesia for Soft tissue & Urogenital Surgery (SWT)	Work with OR Clinician (Student desire)
Wed	Anesthesia for Orthopedic surgery (PC)	Anesthesia for Soft tissue & reproductive Surgery (SEK)
Thu	Anesthesia for Orthopedic surgery (NP)	Work with OR Clinician (Student desire)
Fri	Work with OR Clinician (Student desire)	Self-study