

Course Specification

Doctor of Philosophy Program in Veterinary Science (International Program)

Section 1 General Information

1. Course Code and Title

In Thai	เวชศาสตร์สัตว์เล็ก 1
In English	Small animal medicine I

2. Number of Credits 3 (0-9-3)

(Theory ...3... hrs. Practice ...0... hrs. Self-Study ...6... hrs./week)

3. Curriculum and Course Type

3.1 Program Doctor of Philosophy Program in Veterinary Science
(International Program)

3.2 Course Type Specific Course ☐ Compulsory Course ☐ Elective Course

4. Course Coordinator and Instructor

4.1 Course Responsible Instructor

Assistant Professor Dr. Rungrote Osathanon (RO) email: Rungrote.osa@mahidol.ac.th

Assistant Professor Dr. Ruangrat Buddhirongawatr (RBD) email: Ruangrat.bud@mahidol.ac.th

4.2 Instructors

Assistant Professor Dr. Duangthip Chatchaisak (DC) email: Duangthip.cha@mahidol.ac.th

Assistant Professor Dr. Jeerawat Soonthornsit (JS) email: Jeerawat.soo@mahidol.ac.th

Assistant Professor Dr. Rungrote Osathanon (RO) email: Rungrote.osa@mahidol.ac.th

Dr. Paitoon Srimontri (PSM) email: Paitoon.sri@mahidol.ac.th

Dr. Thirawut Kongtasai (TK) email: Thirawut.kon@mahidol.ac.th

5. Semester/Class Level

5.1 Semester 1

5.2 Number of Students Allowed No more than 6 students

6. Prerequisites

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7. Co-requisites

VSCL 811

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

15 July 2025

Section 2 Course Goals and Course Description

1. Course Goals

Students can utilize knowledge acquired from this course to assess and manage actual patients in the clinic using problem-solving approaches related to conditions of the cardiovascular system, hematologic system, respiratory system, digestive system, endocrine system, urology system, neurologic system, and oncology system. In addition, the students can accurately explain pathophysiology, diagnostic methods and treatment plans to the animal owners.

2. Course Description

(In Thai) การแก้ปัญหาทางคลินิก การตรวจร่างกาย การสื่อสารกับเจ้าของสัตว์ป่วย แนวทางการแก้ไขปัญหาจากอาการทางคลินิก พยาธิสรีรวิทยา การตรวจวินิจฉัยโรคและการรักษาสัตว์ป่วยเนื่องจากความผิดปกติของระบบหัวใจ เลือด และหลอดเลือด ระบบภูมิคุ้มกัน ระบบทางเดินหายใจ ระบบทางเดินอาหาร ระบบต่อมไร้ท่อและเมแทบอลิซึม ระบบทางเดินปัสสาวะ และไต ระบบประสาทและกล้ามเนื้อ และ มะเร็งและเนื้องอก จรรยาบรรณและมาตรฐานวิชาชีพ

(In English) Clinical problem solving; physical examination; client communication; problem-oriented approach from clinical manifestations, pathophysiology; diagnostic methods and management in cardiovascular and hematological disorders, immunological disorders, respiratory disorders, digestive disorders, endocrinological and metabolic disorders, urological and nephrological disorders, neurological disorders, neuromuscular disorders and neoplastic disorders; ethical and professional standard

Section 3

Course Objectives, Course-level Learning Outcomes and Course Implementation

1. Course Objectives

Students can enhance their understanding of pathophysiology, diagnostic techniques, and management of cardiovascular and hematological conditions, immunological issues, respiratory system, digestive problems, endocrinology and metabolic conditions, urological and nephrological disorders, neurological issues, neuromuscular conditions, and neoplastic diseases.

2. Course-level Learning Outcomes: CLOs

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

- 1) CLO 1 Accurately access physical examination findings and laboratory test results
- 2) CLO 2 Accurately plan the diagnosis and management of illnesses in animals
- 3) CLO 3 Arrange communication with the owners regarding the health concerns of the animals effectively

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		
	Lecture	Problem-based learning	Group discussion	MCQ	Presentation	Behavioral observation for group work and discussion
CLO1	x	x	x	x	x	
CLO2	x	x	x	x	x	
CLO3			x		x	x

Section 4 Lesson Plan and Evaluation

1. Lesson Plan

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Lecture	Group discussion		
1	Cardiovascular disorders	3	-	Lecture: Powerpoint	RO
2	Urologic disorders	3	-	Lecture: Powerpoint	TK
3	Respiratory disorders	3	-	Lecture: Powerpoint	RO
4	Hematology and immuno-logic disorders	3		Lecture: Powerpoint	PSM
5	Hematology and immuno-logic disorders	3		Lecture: Powerpoint	PSM
6	Digestive disorders	3		Lecture: Powerpoint	JS
7	Digestive disorders	3		Lecture: Powerpoint	JS
8	Case-based discussion		3	Clinical cases examples	RO, RBD
9	Endocrinologic disorders	3		Lecture: Powerpoint	JS
10	Nephrological disorders	3		Lecture: Powerpoint	TK
11	Neurologic disorders	3		Lecture: Powerpoint	DC
12	Neurologic disorders	3		Lecture: Powerpoint	DC
	Total hours of the entire semester	33	3		

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
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	MCQ	Presentation	Behavioral observation for group work and discussion	(%)
CLO1 Accurately access physical examination findings and laboratory test results	25	10	5	40
CLO2 Accurately plan the diagnosis and management of illnesses in animals	25	10	5	40
CLO3 Arrange communication with the owners regarding the health concerns of the animals effectively	-	10	10	20
Total	50	30	20	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) Ettinger's Textbook of Veterinary Internal Medicine, 9th edition, 2024

2. Suggested Materials

- 1) Journal of Veterinary Internal Medicine
- 2) <https://eclinpath.com>

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

Course Title	Program-Level Learning Outcomes (PLOs)				
	PLO1	PLO2	PLO3	PLO4	PLO5
VSCL 810: Small animal medicine I	M	M	R	R	R

Table 2 Relation between CLOs and PLOs

(Course Code)	Program-Level Learning Outcomes (PLOs)				
	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1 Accurately access physical examination findings and laboratory test results	1	2	3	4	
CLO2 Accurately plan the diagnosis and management of illnesses in animals	1	2	3	4	
CLO3 Arrange communication with the owners regarding the health concerns of the animals effectively					5

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

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|-------------------------------------|-------|---|
| ☐ | 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

Course Title and course code: Small Animal Medicine I (VSCL 810)

Semester 1 Academic Year 2026

No.	Date	Time	Topics/Details	Lecturer	Place
1	Thursday 6 August 2026	9.00 – 12.00	Cardiovascular disorders	RO	LIB Seminar 3 (3 rd floor)
2	Thursday 13 August 2026	9.00 – 12.00	Urologic disorders	TK	Seminar Room (5 th floor)
3	Thursday 20 August 2026	9.00 – 12.00	Respiratory disorders	RO	LIB Seminar 3 (3 rd floor)
4	Thursday 27 August 2026	9.00 – 12.00	Case-based discussion	RO, RBD	LIB Seminar 3 (3 rd floor)
5	Thursday 3 September 2026	9.00 – 12.00	Hematologic and immunologic disorders	PSM	Seminar Room (5 th floor)
6	Thursday 10 September 2026	9.00 – 12.00	Digestive disorders	JS	LIB Seminar 3 (3 rd floor)
7	Thursday 17 September 2026	9.00 – 12.00	Digestive disorders	JS	LIB Seminar 3 (3 rd floor)
8	Thursday 24 September 2026	9.00 – 12.00	Hematologic and immunologic disorders	PSM	Seminar Room (5 th floor)
9	Thursday 1 October 2026	9.00 – 12.00	Endocrinologic disorders	JS	LIB Seminar 3 (3 rd floor)
10	Thursday 8 October 2026	9.00 – 12.00	Neurologic disorders	DC	LIB Seminar 3 (3 rd floor)
11	Thursday 15 October 2026	9.00 – 12.00	Nephrological disorders	TK	LIB Seminar 3 (3 rd floor)
12	Thursday 22 October 2026	9.00 – 12.00	Neurologic disorders	DC	LIB Seminar 3 (3 rd floor)
13	Thursday 29 October 2026	9.00 – 12.00	Neoplastic disorders	PSM	Seminar Room (5 th floor)
14	Thursday 5 November 202	9.00 – 12.00	Final examination	RO, RBD	LIB Seminar 3 (3 rd floor)