



TQF 3 Course Specification

Section 1 General Information

1. Course Code and Title

In Thai	สพวค ๔๔๓ ทักษะหัตถการทางการแพทย์
In English	VSCL 443 Clinical Skill in Veterinary Science

2. Number of Credits

1(0-3-1)
(Theory - hrs. Practice 3 hrs. Self-Study 1 hrs./week)

3. Curriculum and Course Type

3.1 Curriculum	Bachelor Degree Program (Thai)
3.2 Course Type	Specific Course ☐ Compulsory Course ☒ Electives

4. Course Coordinator and Lecturer

4.1 Course Responsible Lecturers

- 1) Assoc.Prof.Dr.Sukanya Manee-in, Department of Clinical Sciences and Public Health
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- 2) Asst.Prof.Rungrote Osathanon, Department of Clinical Sciences and Public Health
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4.2 Lecturers

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- 17) Piyachat Saengsawang, Department of Clinical Sciences and Public Health
Telephone Number 2210, e-mail address: piyachat@mahidol.edu

5. Semester/Class Level

5.1 Semester 1 / Class Level 4

5.2 Number of Students Allowed Approximately 80 Students

6. Pre-requisite

VSPA 328, VSPA 335

7. Co-requisites

VSCL 440, VSCL 441, VSCL 446

8. Study Site Location Faculty of Veterinary Science, Mahidol University

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

19 June 2022

Section 2 Aims and Objectives

1. Course Goals

Learning experience was created for essential clinical skills practice in veterinary student.

2. Objectives of Course Development/Revision

2.1 Course Objectives

This course aims to provide knowledge and abilities as follows:

Clinical procedures in veterinary were practice. Students who accomplished this course can correctly perform clinical procedure follow veterinary profession standard.

2.2 Course-level Learning Outcomes: CLOs

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

1. CLO1 Correctly perform physical examination and medical recording
2. CLO2 Correctly used of surgical and medical instruments
3. CLO3 Correctly perform suture pattern
4. CLO4 Correctly perform aseptic technique of instrument, patient and surgeon
5. CLO5 Correctly perform general anesthesia and anesthetic monitoring
6. CLO5 Correctly perform assigned veterinary clinical procedure

Section 3 Course Description and Implementation

1. Course Description

(Thai) การซักประวัติ การตรวจร่างกาย การบันทึกข้อมูลสุขภาพของสัตว์เลี้ยง การใช้เครื่องมือทางอายุรกรรมและ ศัลยกรรม การผูกเงื่อน การเย็บแผล เทคนิคปลอดเชื้อ เทคนิคการวางยาสลบ การดูแลสัตว์ช่วงก่อน ระหว่างและหลังวาง ยาสลบ และหัตถการสำคัญทางสัตวแพทย์ คุณธรรมและจริยธรรมในการประกอบวิชาชีพสัตวแพทย์

(English) History taking and physical examination in companion animals, medical record, medical and surgical equipment practices, suture patterns, aseptic technique, anesthetic technique, patient monitoring, and clinical procedures, ethics and veterinary jurisprudence

2. Number of hours per semester

Theory (hours)	Practice (hours)	Self-study (hours)
-	3	1

3. Number of Hours per Week for Individual Advice

Course coordinator will give advice for individual student 1 time/week

Section 4: Development of the expected learning outcomes

1. A brief summary of the knowledge or skills expected to develop in students; the course-level expected learning outcomes (CLOs)

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

1. CLO1 Correctly perform physical examination and medical recording
2. CLO2 Correctly use of surgical and medical instruments
3. CLO3 Correctly perform suture pattern
4. CLO4 Correctly perform aseptic technique of instrument, patient and surgeon
5. CLO5 Correctly perform general anesthesia and anesthetic monitoring
6. CLO6 Correctly perform assigned veterinary clinical procedure

2. How to organize learning experiences to develop the knowledge or skills stated in number 1 and how to measure the learning outcomes

CLOs	Teaching and learning experience management					Learning outcomes measurements			
	Practice					Practice examination			
CLO1	Dog					✓			
CLO2	Instrument					✓			
CLO3	Model					✓			
CLO4	Model					✓			
CLO5	Dog					✓			
CLO6	Cadaver and model					✓			

- Specify the methods for management of learning experience and the methods or tools used to measure the learning outcomes used for course management in the table:
 - The methods for managing learning experience including lectures, group discussion, demonstration, group work, etc.
 - The methods for measuring learning outcomes including written exams (specify types of exam papers: MCQ, MEQ, short answer, etc.), practice exams, behavior assessment in group work, group reports, individual report, etc.
- In each CLO, put a sign/or X in the table to specify the methods for managing learning experience and the tools for measuring learning outcomes.
- This table shows information to support the course design in compliance with the constructive alignment principles at the course level.
- Move the information specified in Section 4 to show in Sections 5 accordingly.

SECTION 5 LESSON PLAN AND EVALUATION

1. Lesson Plan

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
1	Medical record, physical examination I		3	Practice in dog	
2	Physical examination II		3	Practice in dog	
3	Suture pattern I		3	Practice in model	
4	Suture pattern II		3	Practice in model	
5	General anesthesia demonstration		3	Demonstration	
6	Clinical skill practice and general anesthesia I		3	Practice in dog and model	
7	Clinical skill practice and general anesthesia II		3	Practice in dog and model	
8	Clinical skill practice and general anesthesia III		3	Practice in dog and model	

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
9	Clinical skill in cadaver		3	Practice in cadaver	
10	Orthopedic		3	Practice in model	
11-15	Clinical skill practice		3	Practice in model	
	Total hours of the entire semester		45		

Theory* refers to learning activities for development of knowledge and skills on cognitive, affective, and social domains.

Practice* refers to learning activities for developing psychomotor skills or workplace-based experience.

Methods* refer to how to organize learning experience such as lectures, presentation, group projects seminars, individual works online studies, etc.

Also verify the consistency of the information in Section 5 with the methods of teaching and learning management specified in Section 4.

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

Learning Outcomes	Evaluation Method*				Weight (Percentage)
	MCQ	Group work	Individual work presentation	Practice exam	
CLO1 Correctly perform physical examination and medical recording	-	-	-	20	20
CLO2 Correctly use of surgical and medical instrument	-	-	-	10	10
CLO3 Correctly perform suture pattern	-	-	-	10	10
CLO4 Correctly perform aseptic technique of instrument, patient and surgeon	-	-	-	10	10
CLO5 Correctly perform general anesthesia and anesthetic monitoring	-	-	-	25	25
CLO6 Correctly perform assigned veterinary clinical procedure	-	-	-	25	25
รวม	-	-	-	100	100

Note*

1. Show the methods/tools and weight for measuring and evaluating each CLO.
2. Total the weight from every tool and CLO to 100
3. Verify the information to be consistent with the evaluation methods shown in Section 4 Table.

Also verify the consistency of the information in Section 5 with the evaluation methods specified in Section 4.

(2) Measurement and evaluation

The measurement and evaluation use either the criteria-based or group-based system, according to the conditions and methods for academic results evaluation of the Faculty of Veterinary Science, Mahidol University. 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) Re-examination (if the course allows any.)

In case that students received an 'F' grade, the course coordinator and the program's Teaching and Learning Development 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.

For the course with the mean score is higher than 75.00 and the minimum score is not less than 45.00. Students must receive the score higher than 47.50 to take to re-examination or extra-course work.

For the course with the mean score between 60.00 – 74.99, students must receive the score higher than 40.00. However, when the mean score is less than 60.00, students, then, should receive the score higher than 40.00 in order to take the 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's Teaching and Learning Development 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.

1. Required Texts

- 1) Betts CW, Crane SW. Manual of Small Animal Surgical Therapeutics. WB Saunders: Philadelphia; 1998.
- 2) Crow SE, Walshaw SO, Boyle JE. Manual of Clinical Procedures in Dogs, Cats, Rabbits, and Rodents. (3rd ed). Wiley-Blackwell: Iowa; 2009.
- 3) Ettinger SJ, Feldman EC. Textbook of Veterinary Internal Medicine. (7th ed). Saunders Elsevier: St. Louis; 2009.
- 4) Fossum TW. Small animal surgery. (2nd ed). Mosby: Missouri; 2002.
- 5) McCurnin DM, Poffenbarger EM. Small Animal Physical Diagnosis and Clinical Procedures. WB Saunders: Philadelphia; 1991.
- 6) Radostits OM, Mayhew IGJ, Houston DM. Veterinary Clinical Examination and Diagnosis. (1st ed). WB Saunders: Philadelphia; 2000.
- 7) Slatter D. Textbook of Small Animal Surgery. (3rd ed). WB Saunders: Philadelphia; 2002.

2. Suggested Materials

- 1) <http://www.bristol.ac.uk/vetscience/research/comparative-clinical/veterinary-education/clinical-skills-boolets/>

3. Other Resources (if any)

Models for clinical skill practice

Section 7 Evaluation and Improvement of Course Implementation

11. Strategy for Course Effectiveness Evaluation by Students

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. Strategy for Teaching Evaluation

The instructors or the course coordinators are assigned to conduct the evaluation as follows.

2.1 the students' evaluation for the instruction and overall outcomes of the course in accordance to criteria mentioned in No. 1 – Strategy for Course Effectiveness by Students.

2.2 The instructors must perform self-assessment for the following criteria.

- (1) Appropriate time spent to prepare for the teaching.
- (2) The instructor's satisfaction with the teaching results.
- (3) Solutions or recommendations for the program's teaching improvement or self-improvement for the next class/academic year.

3. Teaching Improvement

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

4. Verification of Standard of Learning Outcome for the Course

The verification of the standard of the Learning Outcome for the Course is conducted by the course coordinators based on the following aspects.

1. The goals of the learning outcomes are clear and feasible.
2. The learning experience is aligned with the expected goals.
3. The learning experience encourages the students to research and practice self-learning skills.
4. The evaluation methods are appropriate to assess the expected goals and learning experience.
5. The program applied the educational theory and the results from the previous evaluation to plan for improvement.

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.

Relations between the course and the program

Table 1 Relations between the course and the PLOs

Course Name Clinical Skill in Veterinary Science (Course Code) VSCL 443	PLOs							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
	X	X					X	

Table 2 Relations between CLOs and PLOs

VSCL443	PLOs							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1 Correctly perform physical examination and medical recording	X	X					X	
CLO2 Correctly use of surgical and medical instrument		X						
CLO3 Correctly perform suture pattern		X						
CLO4 Correctly perform aseptic technique of instrument, patient and surgeon		X						
CLO5 Correctly perform general anesthesia and anesthetic monitoring		X						

CLO6 Correctly perform assigned veterinary clinical procedure		X						
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