



Program: Doctor of Veterinary Medicine
Course title Zoo, Exotic and Wildlife Medicine
Course code VSCL 552

Academic degree level ☒ Bachelor ☐ Graduate Diploma ☐ Master
☐ Higher Graduate Diploma ☐ Doctor
Faculty / College / Institute: Faculty of Veterinary Science
Department of Clinical Sciences and Public Health

TQF 3 Course Specification

Section 1 General Information

1. Course Code and Title

In Thai	สพวค ๕๕๓	เวชศาสตร์สัตว์ปีก
In English	VSCL 553	Avian Medicine

2. Number of Credits

5 (3-6-8)
(Theory 3 hrs. Practice 6 hrs. Self-Study 8 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

Rapeewan Thampaisarn	Department of clinical science and public health
Contact: 2234	email address: rapeewan.tha@mahidol.edu
Surapatana Leewattanapisarn	Department of clinical science and public health
Contact: 2210	email address: surapatana.lee@mahidol.ac.th

4.2 Lecturers

Rapeewan Thampaisarn (RT)	Department of clinical science and public health
Surapatana Leewattanapisarn (SL)	Department of clinical science and public health
Rassameepen Phonarknguen (RP)	The Monitoring and Surveillance center for Zoonotic diseases in Wildlife and Exotic animals
Weena Puangpin (WP)	The Monitoring and Surveillance center for Zoonotic diseases in Wildlife and Exotic animals
Jiroj Sasipreeyajan (JS)	Chulalongkorn University
Theerasak Songserm (TS)	Kasetsart University

5. Semester/Class Level

5.1 Semester	1/ Class Level 5
5.2 Number of Students Allowed	Approximately 80 Students

6. Pre-requisite

VSPA 210, VSPA 223, VSPA 436

7. Co-requisites

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

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

22th of February, 2020

Section 2 Aims and Objectives

1. Course Goals

Provide students with learning experience to understand poultry farm management, pathogenesis, control and treatment of poultry diseases. Apply knowledge to diagnose disease and solve problems in poultry farms accurately according to veterinary professional standards.

2. Objectives of Course Development/Revision

2.1 Course Objectives

This course aims to provide knowledge and abilities as follows:

- 1) Understand poultry farm management, poultry non-infectious diseases and poultry infectious disease .
- 2) Understand the basic processes of diagnosis, sample collection, and poultry necropsy.
- 3) Apply knowledge to control health problems in poultry farms.
- 4) Consider moral, ethic, and animal welfare.

2.2 Course-level Learning Outcomes: CLOs

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

1. CLO1 Explain pathogenesis of main poultry diseases correctly.
2. CLO2 Solve problems from mismanagement in breeder farms, broiler farms, layer farms, and hatcheries correctly.
3. CLO3 Diagnose poultry diseases correctly.
4. CLO4 Plan disease monitoring, control, and prevention program for poultry farm.
5. CLO5 Explain animal welfare in poultry production correctly regarding related regulations.

Section 3 Course Description and Implementation

1. Course Description

ระบบการผลิต และการจัดการสัตว์ปีก ปัญหาที่เกิดจากการจัดการผิดพลาด ปัญหาโภชนาการ โรคสำคัญ การตรวจวินิจฉัย การรักษา การป้องกัน การเฝ้าระวัง การติดตามโรค และกรณีศึกษา

Poultry production and the management systems, inappropriate management problems; nutritional disorders, important diseases, diagnostic procedures, treatment, prevention, surveillance, monitoring and case studies

2. Number of hours per semester

Theory (hours)	Practice (hours)	Self-study (hours)
3	6	8

3. Number of Hours per Week for Individual Advice

Students make an appointment for an instructor through a course coordinator (1 hour per 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 Explain pathogenesis of main poultry diseases correctly.
2. CLO2 Solve problems from mismanagement in breeder farms, broiler farms, layer farms, and hatcheries correctly.
3. CLO3 Diagnose poultry diseases correctly.
4. CLO4 Plan disease monitoring, control, and prevention plan for poultry farm.
5. CLO5 Explain animal welfare in poultry production correctly regarding related regulations.

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			
	Lecture	Group discussion	Group works	Presentation	Practice	MCQ	Group reports	Presentation skill	In-class observation
CLO1	X					X			
CLO2	X	X	X			X		X	
CLO3	X		X	X	X	X	X	X	X
CLO4	X		X	X		X	X	X	
CLO5	X					X			

SECTION 5 LESSON PLAN AND EVALUATION

1. Lesson Plan

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
1	Poultry Production: breeder farms, broiler farms, layer farm and hatcheries	3		Lecture: ppt	RT/SL
			6	Group discussion: problem-based discussion	
2	Nutritional disease	3		Lecture: ppt	RT/SL
	Principles of poultry necropsy and sample collection		6	Practice: broiler necropsy	
3	External, internal parasites and protozoa in poultry	3		Lecture: ppt	RT/SL
			6	Practice: backyard chicken necropsy	
4	Fungal infection and mycotoxins in poultry	3		Lecture: ppt	RT/SL
			6	Practice: egg breakout analysis	
5	Bacterial infection in poultry	3		Lecture: ppt	RT/SL
			6	Practice: chick quality analysis	
6	Viral infection in poultry I	3		Lecture: ppt	RT/SL/RP/WP
			6	Practice: viral isolation I	
7	Viral infection in poultry II	3		Lecture: ppt	RT/SL/RP/WP
			6	Practice: viral isolation II	
8	Duck management and disease	3		Lecture: ppt	TS/RT/SL
			6	Practice: duck necropsy	

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
9	Viral infection in poultry III	3		Lecture: ppt	
			6	Practice: problem-based discussion	
10	Vaccination, titer interpretation, and drug use in poultry production	3		Lecture: ppt	JS/RT/SL
			6	Practice: group practice I	
11	Biosecurity, animal welfare, and health management in poultry production	3		Lecture: ppt	RT/SL
			6	Practice: group practice II	
12	Ostrich and quail management	3		Lecture: ppt	RT/SL
			6	Group assignment: case study investigation I	
13	Miscellaneous diseases in poultry	3		Lecture: ppt	RT/SL
			6	Group assignment: case study investigation I	
14	Quality assurance system related to poultry production	3		Lecture: ppt	RT/SL
			6	Group assignment: case study investigation III	
15	Group reports and presentation		6	Group presentation: ppt	RT/SL
	Total hours of the entire semester	42	90		

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	Group presentation	In-class observa- tion	
CLO1 Explain pathogenesis of main poultry diseases correctly.	27	-	-	-	27
CLO2 Solve problems from mis-management in breeder farms, broiler farms, layer farms, and hatcheries cor-rectly.	19	-	4	-	23
CLO3 Diagnose poulyty diseases correctly.	25.5	5	5	5.5	41
CLO4 Plan disease monitoring, control, and prevention plan for poultry farm.	4	-	-	-	4
CLO5 Explain animal welfare in poultry production correctly regarding related regulations.	5	-	-	-	5
รวม	80.5	5	9	5.5	100

(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.

Section 6 Teaching Resources

1. Required Texts

- 1) American Association of Avian Pathologists. Whiteman and Bickford's avian disease manual 4thed. Pennsylvania, 1996.
- 2) Jordan F, Pattison M, Alexander D, Faragher T. Poultry Diseases 5thed. Hongkong: W.B. Saunders, 2001.
- 3) Saif YM, Barnes HJ, Glisson JP, Fadly AM, McDougald LR, Swayne DE. Diseases of Poultry 11th ed. Iowa: Iowa State Press, 2003.

Schwartz, L.D. Poultry Health Handbook. 4th ed. Pennsylvania : pennState,

2. Suggested Materials

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3. Other Resources (if any)

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Section 7 Evaluation and Improvement of Course Implementation

1. 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.

Appendix

Relations between the course and the program

Table 1 Relations between the course and the PLOs

Course Name Avian Medicine (Course Code) VSCL 553	PLOs							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
	R	P	R			R	R	R

Remarks: Show the level of the course management with the symbols I, R, P, and M. This must correspond to the curriculum mapping written in the TQF2

Table 2 Relations between CLOs and PLOs

(Course Code) VSCL 553	PLOs							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1 Explain pathogenesis of main poultry diseases correctly.	X							
CLO2 Solve problems from mismanagement in breeder farms, broiler farms, layer farms, and hatcheries correctly.	X		X			X		
CLO3 Diagnose poultry diseases correctly.	X	X						

(Course Code) VSCL 553	PLOs							
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO4 Plan disease monitoring, control, and prevention plan for poultry farm.	X		X				X	
CLO5 Explain animal welfare in poultry production correctly regarding related regulations.							X	X