

# VM4110: SMALL ANIMAL CLINICAL STUDIES 1

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## Effective Term

Semester A 2024/25

## Part I Course Overview

### Course Title

Small Animal Clinical Studies 1

### Subject Code

VM - Jockey Club College of Veterinary Medicine and Life Sciences

### Course Number

4110

### Academic Unit

Veterinary Clinical Sciences (VCS)

### College/School

Jockey Club College of Veterinary Medicine and Life Sciences (VM)

### Course Duration

One Semester

### Credit Units

8

### Level

B1, B2, B3, B4 - Bachelor's Degree

### Medium of Instruction

English

### Medium of Assessment

English

### Prerequisites

Completion of Year 3 courses with C grade or above

### Precursors

Nil

### Equivalent Courses

Nil

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

This course integrates and builds on the foundations of pre-clinical courses including The Animal Body, Function and Dysfunction, Host, Agent and Defence, and Veterinary Practice and Professional Studies. This course will equip students

with knowledge to develop a clinical reasoning framework to be able to assess animals presented in a veterinary setting to diagnose and treat common medical disorders of dogs and cats. A problem-based approach will be utilised, strengthening the problem-based learning skills acquired in Foundation BVM courses. This course is presented on a systems basis, focusing on clinical examination to detect the signs of alteration in function. Students will draw on knowledge and skills learnt in Function and Dysfunction to be able to explain the underlying pathophysiological mechanisms of clinical abnormalities. Diagnostic imaging is a powerful tool to support and make diagnoses, and learning resources in this area will underpin the key areas covered in this course:

**Key Areas:**

- Endocrinology
- Urology
- Gastroenterology and Hepatology
- Diagnostic imaging
- Cardiology
- Respiratory disorders
- Infectious Diseases
- Oncology
- Primary Care/Geriatrics
- Emergency Medicine and Critical Care
- Behaviour medicine

This course provides a sound foundation for progression to Clinical rotations I, II and III and Pre-Clinical/Clinical EMS.

A variety of teaching techniques are used, including lectures, demonstrations, simulations, practical classes and case discussions.

**Course Intended Learning Outcomes (CILOs)**

	<b>CILOs</b>	<b>Weighting (if app.)</b>	<b>DEC-A1</b>	<b>DEC-A2</b>	<b>DEC-A3</b>
1	Describe common medical diseases, including their pathogenesis, pathophysiology, diagnostic investigation, treatment and prognosis.		x	x	
2	Apply data collection skills to be able to take comprehensive medical case histories for canine and feline patients that include relevant epidemiological information and address the presenting complaint.		x		x
3	Develop a logical framework for clinical reasoning for diagnosis that includes the ability to: (i) identify problems from the history, clinical examination and test results (ii) localise lesions within organ systems (iii) assess pathophysiological mechanisms of disease (iv) synthesize a list of differential diagnoses, ranked in order of likelihood.		x	x	
4	Formulate plans for diagnostic investigations and construct a logical order for diagnostic tests, considering the invasiveness of the test, the overall health of the animal and client resources.			x	x

5	Perform common procedures to evaluate the cardiovascular system and interpret findings associated with cardiac and electrolyte disorders, including cardiovascular examination and electrocardiography.			x	x
6	Perform radiography and/or ultrasonography of small animal patients as appropriate in order to procure images of optimal diagnostic quality safely and in accordance with relevant legislation.			x	x
7	Apply the basic principles of diagnostic imaging and anatomy in order to identify normal and abnormal structures, interpret imaging patterns and make radiographic/ultrasonographic diagnoses.		x	x	x
8	Develop an appropriate treatment plan, considering the diagnosis, overall health of the animal and client resources.			x	x
9	Communicate options available to owners including euthanasia and referral to a specialist considering the welfare of the animal, client resources and relevant veterinary legislation.				x

**A1: Attitude**

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

**A2: Ability**

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

**A3: Accomplishments**

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

**Learning and Teaching Activities (LTAs)**

	<b>LTAs</b>	<b>Brief Description</b>	<b>CILO No.</b>	<b>Hours/week (if applicable)</b>
1	Lectures	Students will engage in informal lectures to gain knowledge and essential facts in clinical medicine	1, 2, 3, 4, 5, 6, 7, 8, 9	74 hours in total
2	Case discussions and tutorials*	Students will engage in tutorial activities and case discussions to allow them to work through real-life clinical cases and to analyse and interpret data.	1, 2, 3, 4, 5, 6, 7, 8, 9	21.5 hours in total

3	Practical classes*	Students will participate in groups to get hands-on teaching of practical skills, both on-site and in the clinical skills laboratory.	1, 2, 3, 4, 5, 6, 7, 8, 9	8.5 hours in total
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### Additional Information for LTAs

\*Practical classes, case discussions and tutorials are COMPULSORY. Students can be absent from no more than one of these sessions per semester. Additional absence(s) from these session(s) constitute a course failure. Permission to make up missed practicals, case discussions and tutorials may be granted for excused absences only and only where feasible (i.e., may not be possible for live animal classes). Unexcused absences do not entitle students to any make-up or alternative arrangements.

### Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Quizzes	1, 2, 3, 4, 5, 6, 7, 8, 9	50
2	Written examination (3 hrs)	1, 2, 3, 4, 5, 6, 7, 8, 9	Weighting: 50%

### Continuous Assessment (%)

50

### Examination (%)

50

### Examination Duration (Hours)

3

### Additional Information for ATs

Students must obtain at least 50% in the continuous assessment "Quizzes" and at least 50% in the "Written Examination" to pass the course.

### Assessment Rubrics (AR)

#### Assessment Task

Examinations, Quizzes

#### Criterion

Integrate the clinical sciences of endocrinology, urology, gastroenterology, hepatology, respiratory, cardiology, primary care, oncology, infectious diseases, radiology and behaviour medicine to establish a cognitive framework applicable to particular disease situations.

Discuss and demonstrate the correct use of diagnostic equipment and methodologies to provide optimal and realistic work-up options.

Describe the mechanisms of action, dosage and clinical use of common pharmacological agents used in the different disciplines to select and administer suitable agents to ensure patient welfare and safety and discuss options to deal with side effects that may arise.

#### Excellent (A+, A, A-)

Excellent in understanding and ability to develop and explain differential diagnoses, definitive diagnoses, treatment options, and treatment plans.

#### Good (B+, B, B-)

Good in understanding and ability to develop and explain differential diagnoses, definitive diagnoses, treatment options, and treatment plans.

**Fair (C+, C, C-)**

Has basic understanding and ability to develop and explain differential diagnoses, definitive diagnoses, treatment options, and treatment plans.

**Failure (F)**

Weak understanding and ability to develop and explain differential diagnoses, definitive diagnoses, treatment options, and treatment plans.

**Additional Information for AR**Mark Range

The following is the mark range for each letter grade that must be used for assessment of any examinations or coursework of BVM courses (VM- and GE-coded) offered by PH and VCS:

A+:  $\geq 92\%$ , A:  $\geq 87-91.99\%$ , A-:  $\geq 82-86.99\%$ , B+:  $\geq 75-81.99\%$ , B:  $\geq 68-74.99\%$ , B-:  $\geq 61-67.99\%$ , C+:  $\geq 54-60.99\%$ , C:  $\geq 50-53.99\%$ , F:  $< 50\%$

**Part III Other Information****Keyword Syllabus**

Animal Health & Disease  
 Problem identification  
 Organ system involvement  
 Assessment  
 Interpretation of diagnostic test results  
 Differential Diagnosis; Diagnostic Plan; Definitive Diagnosis  
 Therapy; Treatment Plan  
 Prognosis  
 Pathology  
 Veterinary Pharmacology  
 Diagnostic Imaging/Radiology  
 Cardiology  
 Urology  
 Endocrinology  
 Gastroenterology  
 Hepatology  
 Infectious Diseases  
 Oncology  
 Primary Care  
 Geriatrics  
 Emergency Medicine & Critical Care  
 Respiratory Medicine  
 Behaviour medicine

**Reading List****Compulsory Readings**

Title	
1	The material that students are expected to know is presented in the lectures and in any notes that may be provided to students by the lecturer. When reviewing learning materials provided for the course (lectures, practical classes), students should focus on the learning objectives for the course.

**Additional Readings**

<b>Title</b>	
1	Students may seek to supplement the information presented in lectures and practical classes as needed by consulting any of the textbooks below where they have questions or where clarification is needed to be able to fulfil the learning objectives.