VM4116: PRODUCTION ANIMAL CLINICAL STUDIES

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Production Animal Clinical Studies

Subject Code
VM - Jockey Club College of Veterinary Medicine and Life Sciences
Course Number
4116

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 4 courses with C grade or above

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

The Production Animal Clinical Studies course is structured around the investigative approach, forming a comprehensive framework that students can build on as they integrate material from Livestock Husbandry, Animal Nutrition and Welfare, Function and Dysfunction, and Host, Agent and Defence, and assimilate knowledge and skills during this course. Integrated animal health planning and preventative medicine is an essential component of profitable and sustainable farming. This course will assist students in developing the competence and confidence to provide the service of integrated herd/flock health planning. Although populations (herds/flocks) are the core focus, individual animal medicine and surgery will also be discussed. Species covered include dairy and beef cattle, small ruminants, camelids, pigs and poultry. Production Animal Clinical Studies provides a sound foundation for clinical rotations in later parts of the programme. A variety of pedagogical techniques are used; including lectures, live animals, models and simulations, wet lab exercises, dry lab exercises and discussion, demonstrations, large group case discussions and auto-tutorials.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Gather and assimilate relevant information at an individual animal, mob/flock/herd, and farm-level, by collecting a complete history, conducting thorough environmental and physical examinations and selecting and interpreting appropriate diagnostic tests and samples		x	x	x
2	Evaluate mob/herd/flock reproductive data and information acquired from breeding soundness or reproductive examinations to advise on optimization of breeding management systems		x	x	x
3	Discuss nutritional and metabolic diseases in production animals including risk factors, treatment and preventative measures and advise on appropriate management strategies during transition periods		x	x	x
4	Discuss principles of endo- and ecto-parasite management in production animals including epidemiology, treatment and preventative methods		x	x	x
5	Evaluate protocols for biosecurity including isolation protocols, appropriate use of PPE and strategies for animal movement		x	x	x
6	Discuss the clinical presentation, transmission potential and pathogen(s) associated with important infectious diseases in production animals and the appropriate response to be taken to such a diagnosis		x	x	x
7	Assess an individual animal and design an appropriate sedation/anaesthesia/analgesia protocol for a given situation (e.g. a routine surgical procedure)		x	x	x
8	Outline a suitable approach to common surgical procedures performed in production animal species and perform common surgical procedures		x	x	x
9	Assess and resolve common dystocia presentations in cattle and small ruminants		x	x	x

10	Produce a preventative animal health plan, tailored to an individual farm		x	x	x
11	Collate, analyse and interpret farm production data with reference to existing target KPI’s to identify areas for improvement		x	x	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)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures, case discussions and tutorials	Students will engage in formal lectures to gain essential facts. Students will participate in case discussions to work through real-life clinical cases. During tutorials students will analyse and interpret data.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	74 hours
2	Practical classes*	Students will engage in activities to develop and master hands-on practical skills, both on-farm and in the clinical skills laboratory.	1, 2, 3, 6, 7, 8, 9, 10	30 hours

Additional Information for LTAs

*Practical classes are COMPULSORY. Students can be absent from no more than one practical session per semester. Additional absence(s) from these session(s) constitute a course failure.

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Written sheep flock health and cattle herd health report assignments*	1, 2, 3, 4, 5, 6, 10, 11	20	-	Yes
2	Quiz	1, 2, 3, 4, 5, 6, 7, 8, 9, 11	10	-	No

3	Mid-semester examination (2.5 hrs)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	25	-	No
4	Final examination (2.5 hrs)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	0	25%	No
5	OSCE assessment	1, 2, 7, 8, 9	20	-	No

Continuous Assessment (%)

75

Examination (%)

25

Examination Duration (Hours)

2.5

Additional Information for ATs

*A penalty of 5% of the total marks for the assessment task will be deducted per working day for late submissions, and no marks will be awarded for submissions more than 10 working days late. 1. Students must obtain at least 50% in the course overall, as well as obtain 50% in each of the examinations (Mid-Semester and Final) and pass the OSCE in order to pass the course as a whole. A failing grade in the Practical Examination (OSCEs) will lead to an overall F grade for the entire course. 2. Examinations and the OSCE will be held at scheduled examination times.

Assessment Rubrics (AR)

Assessment Task

Written herd/flock health report assignments

Criterion

Ability to discuss, apply and integrate knowledge. Ability to interpret and present information in a manner appropriate for the intended audience.

Excellent (A+, A, A-)

Excellent integration and application of knowledge. Comprehensively discusses topic while considering clinical relevance. Evaluates solutions. Excellent interpretation and recommendations – factually correct, relevant and feasible – presentation excellent.

Good (B+, B, B-)

Good integration and application of knowledge. Discusses topic while considering clinical relevance. Explains solutions. Good interpretation and recommendations – factually correct – presentation good.

Fair (C+, C, C-)

(For C+ and C) Some integration and application of knowledge. Explains key concepts and recognizes clinical relevance. Suggests appropriate solutions. Some interpretation. Recommendations factually correct, however not tailored to scenario. Fair presentation. See additional information for AR regarding mark range below, as in the BVM programme only C+ and C grades are awarded.

Marginal (D)

Not applicable for the BVM Programme.

Failure (F)

Inadequate knowledge with limited or no ability to integrate or apply to a clinical scenario. Suggests inappropriate solutions. Limited interpretation. Only a few correct or relevant recommendations and/or not feasible. Poorly presented.

Assessment Task

Quizzes and Examinations

Criterion

Ability to discuss, apply and integrate knowledge.

Excellent (A+, A, A-)

Excellent integration and application of knowledge. Comprehensively discusses topic while considering clinical relevance. Evaluates solutions.

Good (B+, B, B-)

Good integration and application of knowledge. Discusses topic while considering clinical relevance. Explains solutions.

Fair (C+, C, C-)

(For C+ and C) Some integration and application of knowledge. Explains key concepts and recognizes clinical relevance. Suggests appropriate solutions. See additional information for AR regarding mark range below, as in the BVM programme only C+ and C grades are awarded.

Marginal (D)

Not applicable for the BVM programme.

Failure (F)

Inadequate knowledge with limited or no ability to integrate or apply to a clinical scenario. Suggests inappropriate solutions.

Assessment Task

OSCE assessment

Criterion

Demonstrates safety and competency in practical skills.

Excellent (A+, A, A-)

Excellent execution of task with few or no errors. No safety concerns.

Good (B+, B, B-)

Good execution of task, with some minor permissible errors. No safety concerns.

Fair (C+, C, C-)

(For C+ and C) Adequate execution of task, but with more significant errors. No safety concerns. See additional information for AR regarding mark range below, as in the BVM programme only C+ and C grades are awarded.

Marginal (D)

Not applicable for the BVM programme.

Failure (F)

Fails to demonstrate appropriate level of competency in practical procedures or completes procedures in an unsafe manner. Poor communication skills or unprofessional.

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

Part III Other Information

Keyword Syllabus

Animal health, Disease, Pathology, Population medicine, Surgery, Anaesthesiology, Theriogenology, Animal production, Clinical procedures, Nutrition, Pathogen, Biosecurity

Reading List

Compulsory Readings

	Title
1	Lecture materials and accompanying notes provided by lecturers.

Additional Readings

	Title
1	These textbooks are meant to supplement the information presented in lecture and are best reviewed after lectures on an as-needed basis. We do not recommend that students read any of these texts prior to lecture due to the sheer volume of information.
2	Rebhun’ s Diseases of Dairy Cattle 2nd edition by Thomas J Divers and Simon F Peek (2008) ISBN: 9781416031376.
3	Diseases of Cattle in Australasia 2nd edition by Tim J Parkinson, Jos J. Vermunt, Jakob Malmo and Richard A. Laven (2019) ISBN: 9780995102958
4	The Sheep: Health, Disease and Production by AL Ridler, N Bruere and D West (2018) ISBN: 978-0-9951001-1-4
5	Sheep flock health: a planned approach by Neil Sargison (2009) ISBN: 9781444302608
6	Smith, M.C. and Sherman, D.M.: Goat Medicine 2nd. Blackwell, Ames IA, 2009
7	Sheep and Goat Medicine 2nd edition by David G Pugh and Aubrey Nickie Baird (2012) ISBN: 9781437723533
8	Bovine Reproduction by Richard Hopper (2014) ISBN: 9781118470831.
9	Diseases of Swine 11th edition by Zimmerman et al. (2019) ISBN: 1119350921
10	Diseases of Poultry 14th edition by Swayne et al. (2020) ISBN: 1-119-37119-8