

VM2003: LIVESTOCK HUSBANDRY

Effective Term

Semester A 2024/25

Part I Course Overview

Course Title

Livestock Husbandry

Subject Code

VM - Jockey Club College of Veterinary Medicine and Life Sciences

Course Number

2003

Academic Unit

Infectious Diseases and Public Health (PH)

College/School

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

Course Duration

One Semester

Credit Units

3

Level

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

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

This course is intended to provide veterinary students with a foundation in livestock production systems where livestock (cattle (beef and dairy), small ruminants, pigs, and poultry) are grazed on rangelands or pastures or where they are managed

in high densities. The course will introduce the uses of production livestock, outline the basics of livestock industries, animal identification, production targets, and data recording. Students will learn about animal husbandry and management of livestock including housing, management of the thermal environment and air quality, provision of water and feed (including agronomy in pastoral systems and feed provision in intensive systems), waste management, and biosecurity. Students will be taught about the link between livestock husbandry and management and production and health issues, how to identify poor husbandry or management practices, and how to make positive husbandry/management changes on-farm. The course will also cover production cycles, general reproductive management, and routine interventions. Students will visit local farms and facilities where they will learn how to assess husbandry systems for pigs, poultry, and cattle. During these visits, students will also assess the respective production systems, in particular routine management practices and farm outputs (productivity). Where appropriate, students will handle pigs, poultry, and cattle, providing opportunities to both observe and practice good stockmanship.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Describe uses of production livestock (cattle, small ruminants, pigs and poultry) and outline the respective livestock industries including production cycles, production targets and routine management interventions		x		
2	Describe normal husbandry and management for production livestock kept on rangeland, pastoral grazing or in high densities		x		
3	Assess husbandry and management practices to identify both optimal and poor husbandry or management, and where appropriate, suggest alternatives that could be implemented on-farm to improve welfare, production and health outcomes		x	x	
4	Discuss the importance of biosecurity and describe appropriate biosecurity protocols in livestock farming systems		x		
5	Assess farm facilities and demonstrate use of appropriate facilities and equipment to handle and restrain livestock safely and humanely		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	Students will gain knowledge in key topics with a comprehensive learning framework at the start of the course, orienting them to the structure, objectives, and strategies for effective navigation of the program.	1, 2, 3, 4, 5	26 hours in total
2	Tutorials	Students will engage in activities that reinforce and deepen their knowledge and understanding of specific topics covered in the course. These reinforcement activities will provide students with opportunities to apply their learning, solidify their grasp of key concepts, and develop a more nuanced and comprehensive understanding of the subject matter. Through these focused reinforcement exercises, students will be able to identify and address any gaps or misconceptions in their knowledge, ensuring a strong foundation for their continued learning and professional development.	1, 2, 3, 4	7 hours in total

3	Field trips*	Students will participate in animal handling under close supervision in appropriate facilities, allowing them to develop practical skills and apply their knowledge in a controlled, hands-on environment. These supervised animal handling activities will enable students to gain experience working directly with various animal species, reinforcing their understanding of animal behavior, husbandry, and clinical procedures. By practicing their skills in a safe and structured setting, students will build confidence and competence, preparing them for the demands of veterinary practice. The use of appropriate facilities will ensure the welfare of the animals and the safety of the students, fostering a responsible and ethical approach to animal handling.	3, 4, 5	6 hours in total: 2 hrs/session x 3 sessions
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Additional Information for LTAs

* These are participation and engagement-required TLA sessions. Students can be absent from no more than one of these sessions per course per semester. Additional absence will constitute a course failure.

Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Field trip reports	3, 4, 5	20
2	Mid-term exam (duration: 1 hour)	1, 2, 3, 4	40

Continuous Assessment (%)

60

Examination (%)

40

Examination Duration (Hours)

2

Assessment Rubrics (AR)

Assessment Task

1. Field trip reports

Criterion

Assess existing facilities and management practices on-farm and competently handles livestock

Excellent (A+, A, A-)

Will exhibit high competence in describing and rating farm management and in humanely handling animals while minimising risk to the animal and to the operators

Good (B+, B, B-)

Will exhibit good competence in describing and rating farm management and in humanely handling animals while minimising risk to the animal and to the operators

Fair (C+, C, C-)

Will exhibit basic competence in describing and rating farm management and in humanely handling animals while minimising risk to the animal and to the operators

Failure (F)

Will exhibit lack of competence in describing and rating farm management and in humanely handling animals while minimising risk to the animal and to the operators

Assessment Task

2. Examinations

Criterion

Describes uses of production livestock and outlines livestock industries. Discuss routine animal husbandry and management practices.

Excellent (A+, A, A-)

Will exhibit high competence in explaining and integrating the knowledge in written format

Good (B+, B, B-)

Will exhibit good competence in explaining and integrating the knowledge in written format

Fair (C+, C, C-)

Will exhibit basic competence in explaining and integrating the knowledge in written format

Failure (F)

Will exhibit lack of competence in explaining and integrating the knowledge in written format

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:

Letter Grade	Mark Range	Letter Grade	Mark Range
A+	≥92%	C+	54-60.99%
A	87-91.99%	C	50-53.99%
A-	82-86.99%	F	<50%

B+	75-81.99%
B	68-74.99%
B-	61-67.99%

Part III Other Information

Keyword Syllabus

Cattle, horses, pigs, poultry, sheep, goats, nutrition, pasture, rangeland, management, climate, husbandry, animal production, breeding, herd, flock, growth rates, food conversion efficiency, economics, waste, health, animal identification, data records, livestock industry, trade, agronomy.

Reading List

Compulsory Readings

Title	
1	Nil

Additional Readings

Title	
1	Banerjee, G. (2015). A textbook of animal husbandry (8th edition). Oxford & IBH Publishing.
2	Cheeke, Peter R. Contemporary Issues in Animal Agriculture (3rd Edition). Pearson Prentice Hall.C.
3	Cottle, D. and Kahn, L. (2014). Beef Cattle: Production and Trade. CSIRO Publishing, Collingwood
4	Duncanson, G. (2013). Veterinary treatment of pigs (Chapters 1: Husbandry, and 2: Nutrition). CABI, Wallingford, UK.
5	Gillespie, J. and Flanders, F. (2016). Modern Livestock and Poultry Production, 9th edition. Cengage Learning, Boston.
6	Plachter, H. and Hampicke, U. (2010). Large-scale Livestock Grazing. Springer-Verlag, Berlin
7	Sejian, V., Naqvi, S., Ezeji, T., Lakritz, J and Lal, R. (2012). Environmental Stress and Amelioration in Livestock Production. Springer-Verlag, Berlin
8	Squier, S. (2011). Poultry science, chicken culture. Rutgers University Press, New Jersey.