VM3003: FOOD SAFETY AND REGULATION

Effective Term
Semester B 2025/26

Part I Course Overview

Course Title
Food Safety and Regulation

Subject Code
VM - Jockey Club College of Veterinary Medicine and Life Sciences
Course Number
3003

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
2

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

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Completion of all Year 4 courses with a C grade or above

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract
This course provides an introduction to the principles of food safety regulation and national legal frameworks as part of an effective and efficient food control mechanism. A working knowledge of the concept of farm to fork, the responsibilities of

veterinarians, primary producers, processors, wholesalers, retailers, and the consumer will also be covered. This includes governance of the entire supply chain from animal feed to veterinary drugs to animal health and welfare. Veterinary public health and the responsibilities and relevance of veterinarians with regards to the production of safe food will be emphasised, including roles in the slaughterhouse and certification of animals and animal products. This course prepares veterinary students to apply risk analysis principles to the entire food chain. It provides an overview of risk analysis frameworks and regulatory decision making as well as the application of Hazard Analysis and Critical Control Points (HACCP) principles, including evaluation of control parameters and methodology at critical control points, validating and auditing the effectiveness of critical control points, critical limits, monitoring tools, corrective action procedures, record-keeping, verification procedures, and certification, in addressing biological, chemical, and physical hazards that may be present in food products.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Explain the major legislation and regulations governing food safety, including key stakeholders involved, international standards, and emerging challenges.	30	x	x	x
2	Describe humane transport, ante-mortem inspection, slaughter techniques and post-mortem inspection in food-producing animals to assess animal health and welfare and identify conditions affecting the quality and safety of products of animal origin and exclude those animals that are unsuitable for the food chain.	35	x	x	
3	Apply risk analysis principles to identify hazards, assess risks, and implement appropriate mitigation measures across the entire food chain, including animal feed, livestock production, control of drug residues and zoonoses, and related veterinary public health services.	20	x	x	x
4	Demonstrate a working knowledge of the principles of HACCP and their application in the context of safe food production.	15		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 attend lectures covering food safety legislation and regulations, risk analysis and HACCP principles, and the role of veterinarians in pre-harvest food safety and slaughterhouse operations.	1, 2, 3, 4	1-3 hrs/wk x 8 wks = 17 hours total
2	Tutorials	Students will participate in problem-based case studies involving international trade and risk analysis.	1, 3	3 hrs in total
3	Field trips	Students will attend a field trip to the CFS Food Research Laboratory for a lecture and tour of the facility.	1, 3	3 hours in total
4	Presentations and group workshops	Students will selectively develop an issue or topic related to the future of food safety regulation, prepare and deliver presentations that explore how food safety regulation may evolve and adapt to emerging challenges, and engage in group discussions and workshops to critically analyze the potential developments and their implications for the field of food safety.	1, 2, 3, 4	3 hrs in total

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	HACCP-related report	1, 2, 3, 4	15	-	Yes
2	Presentation	1, 2, 3, 4	30	-	Yes
3	Field trip and tutorial reports	1, 3	15	5% per tutorial / field trip	Yes

Continuous Assessment (%)

60

Examination (%)

40

Examination Duration (Hours)

2

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 later.

Assessment Rubrics (AR)

Assessment Task

HACCP-related report

Criterion

Able to apply fully the principles of risk analysis and HACCP in minimising the risk of food products to public health

Excellent (A+, A, A-)

Will display high competence in applying principles of HACCP and risk analysis in a public health situation

Good (B+, B, B-)

Will display good competence in applying principles of HACCP and risk analysis in a public health situation

Fair (C+, C, C-)

Will display adequate competence in applying principles of HACCP and risk analysis in a public health situation. 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)

Will display poor competence in applying principles of HACCP and risk analysis in a public health situation

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Assessment Task

Presentation

Criterion

Able to competently explain how food safety is regulated and how future trends will impact upon this system of regulation.

Excellent (A+, A, A-)

Displays high competence explaining how food is regulated and shows awareness of trends in food safety

Good (B+, B, B-)

Displays good competence explaining how food is regulated and shows awareness of trends in food safety

Fair (C+, C, C-)

Displays acceptable competence explaining how food is regulated and shows awareness of trends in food safety. 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)

Displays low competence explaining how food is regulated and shows awareness of trends in food safety

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Assessment Task

Examination

Criterion

Students will be able to explain the scientific principles of HACCP, apply the principles of risk analysis, and analyze how the food safety regulatory system is changing and the impact of future trends on this system.

Excellent (A+, A, A-)

Have obtained an excellent overview of the scientific principles of HACCP and Risk Analysis and how food safety is regulated and changing in today’ s world

Good (B+, B, B-)

Have obtained a good overview of the scientific principles of HACCP and Risk Analysis and how food safety is regulated and changing in today’ s world

Fair (C+, C, C-)

Have obtained an overview of the scientific principles of HACCP and Risk Analysis and how food safety is regulated and changing in today’ s world. 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)

Have obtained a poor overview of the scientific principles of HACCP and Risk Analysis and how food safety is regulated and changing in today’ s world

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Additional Information for AR

Mark Range

The following is the mark range for each letter grade that must be used for assessment of courses offered by the PH and VCS Department of JCC (including Gateway Education (GE) courses):

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%		

** 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.

Part III Other Information

Keyword Syllabus

HACCP, risk analysis, food safety, legislation, regulation, humane transport, ante-mortem, post-mortem, animal welfare, humane slaughter

Reading List

Compulsory Readings

	Title
1	Gracey’ s meat hygiene (2015). 11th edition. Wiley Blackwell
2	Eds Dreyer et al. Food Safety Governance: Integrating Science, Precaution and Public Involvement.
3	Hubbert et al. Food Safety and Quality Assurance: Foods of Animal Origin.
4	David Vose. Risk Analysis: A quantitative guide.
5	Bad Bug Book, Foodborne Pathogenic Microorganisms and Natural Toxins (2012). 2nd edition. Food and Drug Administration

Additional Readings

	Title
1	Nil