

VM3003: FOOD SAFETY AND REGULATION

Effective Term

Semester B 2024/25

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 Year 4 course (VM2104 Introduction to Food Safety) with C grade or above

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

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 primary producers,

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 disease. Veterinary public health and its veterinarians' responsibilities and relevance with regards to the production of safe food will be emphasised, and the roles in industry of regulation and certification of animals and animal products. This course then prepares veterinary students to apply risk assessment principles as applied to food safety systems. Risk analysis frameworks and regulatory decision making, Hazard Analysis and Critical Control Points (HACCP) and 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, recordkeeping, 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 DEC-A1 app.)		DEC-A2	DEC-A3
1	Explain the legislative environment with regards to food, including the construction of food legislation and the key stakeholders involved in food regulation (AVBC).	20	x		
2	Analyze on-farm food safety practices such as the farm to fork principles, including animal feed safety, drug residues, animal health, and the specific roles and responsibilities of veterinarians in conjunction with physicians, public health practitioners, and risk analysts (OIE).	45	x	x	
3	Apply the principles of risk analysis and demonstrate how they can be used in the context of food production, drug residues, animal disease, and other related veterinary services (OIE).	25		x	x
4	Demonstrate a working knowledge of the principles of HACCP and their application in the context of food safety production.	10		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 that provide an overview of food regulation, learn about the principles of risk analysis and HACCP.	1, 2, 3, 4	1.5 hr/wk x 12 wks = 18 hours in total
2	Tutorials	Students will participate in problem-based case studies involving the drafting of new regulations to control a novel type of food product.	1, 2, 3, 4	6 hrs in total
3	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	2 hrs in total

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	HACCP-related report	1, 2, 3, 4	30	
2	Presentation	1, 2, 3, 4	30	

Continuous Assessment (%)

60

Examination (%)

40

Examination Duration (Hours)

1

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

Failure (F)

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

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

Failure (F)

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

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

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

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, regulation

Reading List

Compulsory Readings

Title	
1	Eds Dreyer et al. Food Safety Governance: Integrating Science, Precaution and Public Involvement.
2	Hubbert et al. Food Safety and Quality Assurance: Foods of Animal Origin.
3	David Vose. Risk Analysis: A quantitative guide.

Additional Readings

Title	
1	Nil