

VM2104: INTRODUCTION TO FOOD SAFETY

Effective Term

Semester B 2023/24

Part I Course Overview

Course Title

Introduction to Food Safety

Subject Code

VM - Jockey Club College of Veterinary Medicine and Life Sciences

Course Number

2104

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

Completion of Year 1 courses with C grade or above (for Bachelor of Veterinary Medicine students)

Precursors

VM2001 One Health

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

This course prepares veterinary students to understand the complex nature of food production from farm to the fork, including seafood production. It also provides an overview of the multidisciplinary nature of the food industry and food

production systems, whilst emphasising food hygiene and quality and food security. The transport and handling of cattle, sheep, pigs, poultry and fish will be covered as well as basic welfare issues in relation to these practices. The course will also cover slaughter techniques, (including ritualistic slaughter), meat inspection, slaughterhouse operation, data collection and tracking of animals. The students will become familiar with the microbiology and epidemiology of food-borne pathogens and intoxications and how these enter or can be prevented from entering the food chain. The course introduces the principles of sanitation, food production, food processing, food transportation and related quality assurance practices regulations. Global food issues such as food sustainability, agro-terrorism, drug residues, and animal identification will be discussed as well. Food safety issues concerning milk production, processing, transport and storage, will also be addressed.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Explain how safe food is produced, processed, transported, stored and displayed in order to be able to advise on public health and food safety (RCVS).	20	x	x	
2	Describe ante mortem-, slaughtering and post mortem inspection in food-producing animals, in order 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 (RCVS, WOA).H).	35	x	x	
3	Assess the microbiology and epidemiology of major food-borne infections and intoxications in order to plan and design a food safety investigation.	35	x	x	
4	Analyse global food issues such as food security, sustainability, trade and agro-terrorism in order to hypothesize future impacts on food security and safety and propose recommended prevention strategies.	10	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.

Teaching and Learning Activities (TLAs)

TLAs	Brief Description	CILO No.	Hours/week (if applicable)	
1	Lectures	Introduction to food safety from farm to the fork	1, 2, 3, 4	1 hr/wk (11 weeks)

2	Tutorials	Problem based food safety investigation	1, 2, 3, 4	1 hr/wk (11 weeks)
3	Field Trips	Observation of the food industry in action	1, 2, 3, 4	3 hrs/2 times
4	Presentations and group workshops	An opportunity to selectively develop an issue and discuss how food safety/security will be affected in the next few decades	1, 2, 3, 4	1 hr/wk (11 weeks)

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Midterm	1, 2, 3	30	
2	Field trip reports	1, 2	10	5% per field trip

Continuous Assessment (%)

40

Examination (%)

60

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 late.

Assessment Rubrics (AR)**Assessment Task**

1. Midterm

Criterion

Able to demonstrate knowledge and understanding of food-borne diseases

Excellent (A+, A, A-)

Displays a high level of knowledge and understanding of food-borne diseases

Good (B+, B, B-)

Displays a good level of knowledge and understanding of food-borne diseases

Fair (C+, C, C-)

Displays a competent level of knowledge and understanding of food-borne diseases

Failure (F)

Lacks a competent level of knowledge and understanding of food-borne diseases

Assessment Task

2. Field trip reports

Criterion

Able to complete an inspection in food premises and markets

Excellent (A+, A, A-)

Displays high competency and familiarisation with inspection of food premises and markets

Good (B+, B, B-)

Displays good competency and familiarisation with inspection of food premises and markets

Fair (C+, C, C-)

Displays competency and familiarisation with inspection of food premises and markets

Failure (F)

Lacks competency or familiarisation with inspection of food premises and markets

Assessment Task

3. Final Examination

Criterion

Able to demonstrate knowledge and understanding of food production, processing and safety

Excellent (A+, A, A-)

Displays a high level of knowledge and understanding of food production, processing and safety

Good (B+, B, B-)

Displays a good level of knowledge and understanding of food production, processing and safety

Fair (C+, C, C-)

Displays a competent level of knowledge and understanding of food production, processing and safety

Failure (F)

Lacks a competent level of knowledge and understanding of food production, processing and safety

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+	≥85%	C+	55-59.99%
A	80-84.99%	C	50-54.99%
A-	75-79.99%	F	<50%
B+	70-74.99%		
B	65-69.99%		
B-	60-64.99%		

Part III Other Information**Keyword Syllabus**

Food safety, ante-mortem, post-mortem, slaughterhouse, foodborne illness, foodborne pathogen, outbreak investigation, epidemiology, animal welfare, global food security

Reading List**Compulsory Readings**

Title	
1	Christine Dodd, Tim Aldsworth, Richard Stein (2017). Foodborne diseases. 32nd edition. Academic Press.
2	Practical Food Safety: Contemporary Issues and Future Directions. 1st Edition. Wiley Blackwell
3	Gracey's meat hygiene. 11th edition. Wiley Blackwell

Additional Readings

Title	
1	Nil