GE1351: FOOD PRODUCTION AND SECURITY

Effective Term
Semester A 2023/24

Part I Course Overview

Course Title
Food Production and Security

Subject Code
GE - Gateway Education
Course Number
1351

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

GE Area (Primary)
Area 3 - Science and Technology

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 students with a foundation in food production systems, following a farm-to-fork approach, with a specific emphasis on food-animal production. Main topics include human population growth and increasing demand for food; current challenges in food production and sustainable solutions, production of plant-based food; food-animal production including livestock, poultry, and aquatic species; application of new methods and technologies to increase the efficiency of the food production systems. There will be an emphasis on feeding and farming of food animals throughout the course. This course will also lay the foundation for other subjects, such as livestock husbandry, aquaculture, and food safety.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Outline the global food demands and explain the farm-to-fork approach		x	x	
2	Describe the systems of animal production and the factors affecting the quality and safety of the food products of animal origin		x	x	
3	Discuss factors that influence an animal's nutritional demand and outline strategies farmers can implement to feed their livestock		x	x	x
4	Identify current challenges in the global food-animal production and discuss potential sustainable solutions		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	Lecture	Introduction to topics and provision of learning framework	1, 2, 3, 4	3 hrs per week for 9 weeks
2	Tutorial	Reinforcement and deepening of knowledge and understanding of specific topics	1, 2, 3, 4	3 hrs per week for 2 weeks
3	Field trip*	Visits to facilities along the farm-to-fork value chain	2, 3	2 hrs per week for 3 weeks

Additional Information for TLAs

* 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	Group essay/presentation	3, 4	30	
2	Midterm examination	1, 2, 3	35	

Continuous Assessment (%)

65

Examination (%)

35

Examination Duration (Hours)

2

Assessment Rubrics (AR)

Assessment Task

1. Group essay/presentation

Criterion

Ability to explain why global food production is at risk due to challenges, such as climate change and unsustainable husbandry systems, and potential solutions to these problems

Excellent (A+, A, A-)

Will exhibit high competence in understanding, explaining, exploring and integrating the knowledge

Good (B+, B, B-)

Will exhibit good competence in understanding, explaining, exploring and integrating the knowledge

Fair (C+, C, C-)

Will exhibit basic competence in understanding, explaining, exploring and integrating the knowledge

Failure (F)

Will exhibit lack of competence in understanding, explaining, exploring and integrating the knowledge

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Assessment Task

2. Midterm examination/final examination

Criterion

Ability to explain the concepts and the process of food and food-animal production

Excellent (A+, A, A-)

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

Good (B+, B, B-)

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

Fair (C+, C, C-)

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

Failure (F)

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

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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 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 production, food security, food-animal production, sustainable farming

Reading List

Compulsory Readings

	Title
1	Conklin, A. and Stillwell, T. (2007). World Food Production and Use. Wiley, Hoboken https://onlinelibrary.wiley.com/doi/pdf/10.1002/9780470168721.fmatter
2	Rattray, Brookes, Nicol, Rattray, P. V., Brookes, I. M., Nicol, A. M., & New Zealand Society of Animal Production, publisher, issuing body. (2017). Pasture and supplements for grazing animals (Revised 2017.). Cambridge, New Zealand: New Zealand Society of Animal Production (Inc.) https://julac-cuh.primo.exlibrisgroup.com/permalink/852JULAC_CUH/vit3jk/alma991029474974303408

Additional Readings

	Title
1	http://www.fao.org/ag/againfo/themes/en/animal_production.html
2	http://www.fao.org/3/i6583e/i6583e.pdf
3	https://www.afcd.gov.hk/misc/download/annualreport2019/en
4	https://www.tandfonline.com/doi/full/10.1080/10496500903022613
5	https://www.youtube.com/watch?v=0emw7IkFdK8
6	https://www.youtube.com/watch?v=mnoCy0j7DNs
7	https://www.youtube.com/watch?v=KfB2sx9uCkI
8	https://www.youtube.com/watch?v=5oyo3b0zy3g

Annex (for GE courses only)

A. Please specify the Gateway Education Programme Intended Learning Outcomes (PILOs) that the course is aligned to and relate them to the CILOs stated in Part II, Section 2 of this form:

Please indicate which CILO(s) is/are related to this PILO, if any (can be more than one CILOs in each PILO)

PILO 1: Demonstrate the capacity for self-directed learning

4

PILO 2: Explain the basic methodologies and techniques of inquiry of the arts and humanities, social sciences, business, and science and technology

1, 2

PILO 3: Demonstrate critical thinking skills

3, 4

PILO 4: Interpret information and numerical data

1, 2, 3, 4

PILO 5: Produce structured, well-organised and fluent text

1, 2, 3, 4

PILO 6: Demonstrate effective oral communication skills

3, 4

PILO 7: Demonstrate an ability to work effectively in a team

3, 4

PILO 8: Recognise important characteristics of their own culture(s) and at least one other culture, and their impact on global issues

1, 2, 4

PILO 9: Value ethical and socially responsible actions

1, 2, 3, 4

PILO 10: Demonstrate the attitude and/or ability to accomplish discovery and/or innovation

4

B. Please select an assessment task for collecting evidence of student achievement for quality assurance purposes. Please retain at least one sample of student achievement across a period of three years.

Selected Assessment Task

Nil