**Liverpool** John Moores University

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| Title: | Animal Hygiene and Health |
| Status: | Definitive |
| Code: | **6503YAUZOO** (127934) |
| Version Start Date: | 01-08-2021 |
| Owning School/Faculty: | Biological and Environmental Sciences |
| Teaching School/Faculty: | Yunnan Agricultural University |

| Team | Leader |
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| Rachael Symonds | Y |

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| **Academic Level:** | FHEQ6 | **Credit Value:** | 20 | **Total Delivered Hours:** | 118 |
| **Total Learning Hours:** | 200 | **Private Study:** | 82 | | |

**Delivery Options**
Course typically offered: Semester 1

| Component | Contact Hours |
|---|---|
| Lecture | 104 |
| Practical | 8 |

**Grading Basis:** 40 %

**Assessment Details**

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|---|---|---|---|---|
| Exam | Exam | Written exam covering lecture material for animal food hygiene | 23.3 | 2 |
| Exam | Exam | Written exam covering lecture material for animal food safety | 23.3 | 2 |
| Exam | Exam | Written exam covering lecture material for public health | 23.3 | 2 |
| Test | Test | Test on all aspects of lecture material covered | 30 | |

**Aims**

*Animal hygiene and health is a highly practical professional course in animal medicine in which students gain basic knowledge and relevant theories of animal*

*food safety . It is based on the theory of animal medicine and public health, to study the animal foods such as meat, milk, eggs, aquatic products and honey. Preventive and productive health supervision,identification and control of product hygiene quality and its reasonable processing and utilization is studied, to ensure the normal operation of production and management, and to protect the health of people and animals, prevent the spread of epidemics and enhance the comprehensive application of human welfare. Through the course study, students will understand how to ensure that people get animal foods that with health requirements and are suitable for human consumption, prevent pathogens and other harmful factors from harming human health through animal foods, and prevent the spread of animal diseases. It can protect the safety of consumers and make sufficient use of animal product resources and promote the development of aquaculture. Food is the material basis for human survival and development, and food safety is a major issue related to people's health and national economy and people's livelihood. At present, food safety has become the fourth major problem after population, resources and environment, and has been paid more and more attention by governments and consumers all over the world. With the continuous development of China's economy and society and the improvement of people's living standards, food safety has put forward higher and higher requirements. Therefore, it is of great significance to strengthen food safety and improve food quality. Students will also master the principles and concepts of epidemiology and by determining the distribution of diseases in groups, collecting and analyzing data, risk factors and causes of animal diseases will be determined. Then epidemiological studies are used to develop and measures of the prevention, control and eradication methods for animal diseases. At the same time, student also will master the ability of design, implementation and analysis the results of epidemiological study independently.*

## Learning Outcomes

After completing the module the student should be able to:

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| 1 | Understand the status and role of animal food hygiene inspection in animal public health and master the mechanism of animal food deterioration, change process, hygiene and inspection, and principles of sanitary treatment using food residue analysis technology and sample pretreatment technology for food residue analysis |
| 2 | Understand the relationship between chemical and physical pollution, biological food poisoning, zoonoses and food safety and understand the harmfulness of animal food pollution and measures to control it. |
| 3 | Understand the relationship between public health, food standardization, food quality control and food safety, and know the quality and safety standards of pollution-free agricultural products, green agricultural products and organic agricultural products and the key production technologies. |
| 4 | Understand the certification knowledge of pollution-free agricultural products, green agricultural products and organic agricultural products, and can guide the certification practice. |
| 5 | Master the relationship between ecological balance, environmental pollution, zoonosis, animal food safety, laboratory animal medicine and modern biotechnology and human health |

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

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|---|---|---|---|---|---|
| Written exam | 1 | 2 | 3 | 4 | 5 |
| Written exam | 1 | 2 | 3 | 4 | 5 |
| Written exam | 1 | 2 | 3 | 4 | 5 |
| Test | 1 | 2 | 3 | 4 | 5 |

**Outline Syllabus**

*The concept of food safety, animal food chemical and physical pollution, biological food poisoning, animal disease cause of public health security, poisonous and harmful substances in food on human health effects of public health problem, the connotation of the standardization of food and animal food safety. Food quality control system to prevent and control potential hazards in the whole process of food safety production; Key technologies of food standardized production; Food safety certification; Food residue analysis of sample pretreatment technology, modern food residue analysis related technology. An understanding of the history, definition, role and apply of animal epidemiology. The calculation and application of common indicators of disease distribution and description distribution, data collection and analysis. The development of etiology concepts, the model of etiology and the multiple causes of disease, the correlation between statistical correlation and causality, the principle of etiology determination. The characteristics and uses of descriptive research, the concept and use of prevalence study, the types and characteristics of sampling methods, and the analysis and design analysis methods of analytical epidemiological data such as cohort study and case control studies. Definition, principle, characteristics and use of epidemiological experiments; Screening and diagnostic test evaluation. The method of establishing epidemiological models.Environment and animal and human health and ecological balance will also be covered, including; animal food pollution, control, safety and evaluation;  human veterinary disease and prevention and control, including classification of human zoonosis, hazards, epidemiological characteristics and prevention and control; experimental animal medicine and health, including public health risks of experimental animals, microbial and parasitic pollution control of experimental animals; modern biotechnology and health, including the development trend of modern biotechnology, the application of modern biotechnology in the field of human health.*

**Learning Activities**

The module content will be delivered through lectures and a  final exam, to promote the achievement of learning goals.

**Notes**

This module is for individuals to  understand  an animal food hygiene knowledge systems from food safety through to animal health. The  theoretical knowledge of animal food hygiene, the principles and methods of animal food safety related inspection and quarantine technology will be applied  to animal food safety.Safety technology, public health knowledge systems and an understanding of the relationship between people and the environment will also be covered.