

Module Information

2022.01, Approved

Summary Information

Module Code	3502YAUZOO
Formal Module Title	Animal Physiology and Biochemistry
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 3
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Yunnan Agricultural University

Learning Methods

Learning Method Type	Hours
Lecture	96

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	Animal Physiology and Biochemistry covers the various systems, organs, and cells of the animal body from a physiological and biochemical perspective. It includes the transport function and information transmission in the animal's body; the physiology of the heart, blood vessels and blood circulation, the physiology of breathing; the physiology of digestion; the regulation of energy metabolism and body temperature; the physiology of urology. This basic knowledge must be gained by undergraduates majoring in animal science. The main task of this course is to enable students to master the basic concepts and principles of biochemistry and the basic characteristics and general laws of life activities.
------	--

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Master the chemical composition and nature of animal the body and clearly understand cell functions and their mechanisms through to whole body systems.
MLO2	2	Clearly understand and master the intermediate metabolism process and regulation mechanism of the body, integrate theory with practice, and cultivate students' ability of observation, thinking and innovation.
MLO3	3	Master the basic theories, knowledge and skills of animal biochemistry
MLO4	4	Training in scientific thinking and method.
MLO5	5	Master the function and regulation of the blood and blood circulation system, the respiratory system and its regulation and the digestive, urinary and endocrine systems.

Module Content

Outline Syllabus	This course focuses on the basic characteristics of life involving metabolism and transmission of genetic information. It describes the composition and structure of the basic substances that make up life such as protein, sugars and lipids and the metabolic changes in the body, and the relationship between these changes. It focuses on the metabolism process of three major nutrients in vivo and the central principle of nucleic acid which is the genetic material of life. The rich knowledge of this course not only teaches the biochemical background related to ordinary life activities, but also the biochemical content related to animals and humans, and intersperses biochemical reactions under pathological conditions in depth. This course then focuses on the main functions and mechanisms of cells; the functions and regulation of blood and blood circulation systems; the functions and regulation of the respiratory system; its regulation; the principle of energy metabolism and body temperature regulation; urinary system function and its regulation; hormones secreted by important glands of the endocrine system, their physiological functions, and their regulation.
Module Overview	
Additional Information	The module is for individuals to master the basic theories, basic knowledge and basic skills of animal biochemistry and physiology and lay the foundation to further study the other professional basic courses and professional courses. It will cover material from the level of cells and molecules, organs and systems, and the overall and environmental levels, so as to have comprehensive analysis of animal physiology and biochemistry.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Written exam	30	2	MLO1, MLO2, MLO4, MLO5

Report	Coursework	20	0	MLO1, MLO2, MLO4, MLO5
Exam	Written exam	35	2	MLO3, MLO4, MLO5
Report	Coursework	15	0	MLO3, MLO4, MLO5

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Rachael Symonds	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------