

Summary Information

Module Code	3504YAUBIO
Formal Module Title	Soil and Fertiliser Science
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	54
Practical	34

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks

Aims and Outcomes

Aims	The module is a professional basic course of agronomy and horticulture. It is a comprehensive course of soil science, plant nutrition and fertiliser science. The aim of the module is for students to study the basic theories and properties of soil and fertiliser, and reveal the nutrition relationship among soil, plant and fertiliser. The module also provides an opportunity for students to develop practical skills in determination methods, operation steps and laboratory condition control skills, related to soil fertility index and fertiliser variety identification and analysis.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate knowledge of science of soil and fertiliser principles.
MLO2	2	Describe the application of science of soil and fertiliser to the research and development of food science.
MLO3	3	Demonstrate basic practical skills in science of soil and fertiliser.

Module Content

Outline Syllabus	The module provides an overview of soil and fertiliser science, including basic material composition of soil, basic properties of soil, formation, classification and distribution of soil, principles of plant nutrition and fertilisation, nitrogen nutrition and nitrogen fertiliser of soil and plant, phosphorus nutrition and phosphorus fertiliser of soil and plant, potassium nutrition and potassium fertiliser of soil and plant, medium and micro element nutrition of soil and plant, medium and micro element waste and compound fertiliser material, and organic fertiliser. Practical experiments include recognising of main soil-forming rocks and minerals, soil mechanical composition analysis by hydrometer method, determination of soil organic matter, determination of soil available phosphorus content, determination of available potassium content in soil and qualitative identification of common mineral fertilisers.
Module Overview	
Additional Information	This module is for students to develop an understanding of the science of soil and fertiliser developments, including principles and application in soil and fertiliser. Students will also develop basic practical skills in the science of soil and fertiliser.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Exam	35	2	MLO1, MLO2, MLO3
Practice	Practice	10	0	MLO1, MLO2, MLO3
Exam	Exam Test	10	0	MLO1, MLO2, MLO3
Exam	Exam MT	5	0	MLO1, MLO2, MLO3
Practice	Practice	10	0	MLO1, MLO2, MLO3

Report	Report	25	0	MLO1, MLO2, MLO3
Test	Test	5	0	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Katie Evans	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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