

## Liverpool John Moores University

Title: Environmental Biotechnology  
Status: Definitive  
Code: **6506YAUBIO** (127894)  
Version Start Date: 01-08-2021

Owning School/Faculty: Pharmacy & Biomolecular Sciences  
Teaching School/Faculty: Yunnan Agricultural University

Team	Leader
Katie Evans	Y

**Academic Level:** FHEQ6  
**Credit Value:** 10  
**Total Delivered Hours:** 50  
**Total Learning Hours:** 100  
**Private Study:** 50

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	48

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Exam	50	2
Test	AS3	Basic composition of environmental biotechnology	10	
Exam	AS2	Applications of modern environmental biotechnology	40	

### Aims

*Environmental Biotechnology module focuses on the basic theories and concepts of biotechnology in the environment.*

*The module aims to provide students with a comprehensive understanding of the basic composition of environmental biotechnology, the application methods and techniques of biotechnology in the environment, and an understanding of the significance of these methods for environmental governance and remediation.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Explain the concept of environmental biotechnology.
- 2 Demonstrate knowledge of the basic theory of biochemical reaction metrology and biochemical reaction kinetics.
- 3 Demonstrate knowledge of the basic theory of biochemical reaction thermodynamics.

## Learning Outcomes of Assessments

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

Exam	1	2	3
Test	1	2	3
Exam	1	2	3

## Outline Syllabus

*The module covers the biological theoretical basis of modern biotechnology, genetic engineering technology, enzyme technology, fermentation engineering and other technical means in environmental pollution, treatment, remediation of new methods, new technologies and the latest developments. Students will learn to make comprehensive use of the basic knowledge and technology to solve some practical problems.*

## Learning Activities

The module content will be delivered through a series of lectures, focused on the main methods and technical means of biotechnology in the prevention, treatment or remediation of environmental pollution.

## Notes

The module is designed to cultivate scientific thinking and innovation ability, and to improve theoretical literacy and application skills. The curriculum is designed to summarise the concept and research category of environmental biotechnology, with emphasis on the basic theory and basic knowledge of environmental biotechnology. The module will enable students to understand the basic concepts of environmental biotechnology, increase their awareness of environmental protection, and promote the concepts of protecting and cleaning the environment in the process of environmental governance and restoration in the future.