

Summary Information

Module Code	5501YAUNUT
Formal Module Title	Food Biotechnology
Owning School	Sport and Exercise Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Sport and Exercise Sciences

Learning Methods

Learning Method Type	Hours
Lecture	72
Practical	24

Module Offering(s)

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

Aims and Outcomes

Aims	The aim of this module is for individuals to develop an understanding of the biotechnology developments, principles and application in food science. Individuals are required to understand principals in genetic engineering, cell engineering, enzyme engineering, protein engineering, fermentation engineering, downstream processing of bioengineering, and safety of genetic modified foods. Individuals will broaden their knowledge in life science. An understanding of theoretical knowledge and application will support the ability of individuals to devise and deliver appropriate practical sessions, and to apply this technology to scientific research.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate knowledge of historical, current and future food biotechnology principles.
MLO2	2	Demonstrate the application of historical, current and future biotechnology into research and development of food science.
MLO3	3	Acquire basic practical skills in historical, current and future food biotechnology

Module Content

Outline Syllabus	An understanding of food biotechnology including genetic engineering, cell engineering, enzyme engineering, protein engineering, fermentation engineering, downstream processing of bioengineering, and their applications in food science. An understanding of safety of genetic modified foods, multi-omics and bioinformatics technology. To develop and deliver appropriate practical sessions relevant to food biotechnology, e.g. agarose electrophoresis, membrane purification of black tea infusion, enzymatic purification of juice.
Module Overview	
Additional Information	This module is for individuals to develop an understanding of historical, current and future biotechnology developments, principles and application in food science. Individuals will also develop basic practical skills in historical, current and future food biotechnology.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Practical Exam	33	1	MLO1, MLO2, MLO3
Exam	Practical Exam	33	1	MLO2, MLO3, MLO1
Exam	Practical Exam	34	1	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Abdulmannan Fadel	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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