

Module Information

2022.01, Approved

Summary Information

Module Code	6203NATSCI
Formal Module Title	Applications of Genetics in Health and Disease
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	26
Practical	22
Workshop	2

Module Offering(s)

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

Aims and Outcomes

Aims	This module aims to investigate how genetics and genomics can be used to understand a range of physiological processes in health and disease.
------	---

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate how genomics can be used in personalised medicine, cancer, epigenetics and regenerative medicine.
MLO2	2	Discuss the genetic mechanisms involved in regulating physiological processes such as ageing, development, cancer and behaviour.
MLO3	3	Critically evaluate the role of microbiota in regulating human and animal health and the techniques that can be used to understand these bacterial species.
MLO4	4	Utilise genetic databases (e.g. GenBank) for identification of species from DNA sequence data

Module Content

Outline Syllabus	The role of genetics and genomics in understanding major physiological processes such as cancer, behaviour, development and ageing will be discussed as well as how epigenetics and resident bacterial microflora (which is itself shaped by an individual's immunity and hence genetics) may alter these processes. The aims and learning outcomes of this module will be addressed through a series of lectures that reflect the contemporary research interests of individual staff members.
Module Overview	This module provides you with an appreciation of some modern genetic and genomic techniques that are regularly used in studies of health and disease. It is recommended that students complete the level 5 module Genes and Genomes before taking this module.
Additional Information	This module provides students with an appreciation of some modern genetic and genomic techniques that are regularly used in studies of health and disease. It is highly recommended that students should attend Genes and Genomes(5205NATSCI) before taking this module.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Examination	50	2	MLO1, MLO2
Report	Practical Report	50	0	MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Robbie Rae	Yes	N/A

Partner Module Team

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