MODULE DESCRIPTOR

Module Title

Bioinformatics

Reference	AS3145	Version	2
Created	August 2021	SCQF Level	SCQF 9
Approved	February 2018	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

To give students studying Applied Biosciences a comprehensive understanding of the principles of bioinformatics and biological databases.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Explain the various techniques available to study genomes, genes and gene products.
2	Discuss basic bioinformatics techniques for analysis of sequence data.
3	Analyse sequence data and show the relationship between sequences.

Indicative Module Content

Background to bioinformatics; Databases; BLAST searches; Alignments; Phylogenetic analysis; Genome biology; Computer languages; -omics analysis; Bioinformatical statistics

Module Delivery

A combined approach utilising formal lectures and computer workshops.

Indicative Student Workload	Full Time	Part Time
Contact Hours	34	N/A
Non-Contact Hours	116	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
Actual Placement hours for professional, statutory or regulatory body		

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ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Examination	Weighting:	60%	Outcomes Assessed:	1, 2
Description:	Unseen closed book examination				

Component 2

Type:	Coursework	Weighting:	40%	Outcomes Assessed:	3
Description:	Lab report based on computational analysis of bioinformatics data				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The first grade represents Component 1 (EX1) weighted as major and the second, Component 2 (CW1), weighted as minor. A minimum module grade of D is required for a pass, with compensation of grade E in Component 1 or Component 2 permitted. Non-submission of either component will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
A	AA, AB
B	AC, AD, BA, BB, BC, CA
C	AE, BD, BE, CB, CC, CD, DA, DB, EA
D	CE, DC, DD, DE, EB, EC
E	AF, BF, CF, DF, ED, EE, EF, FA, FB, FC, FD
F	FE, FF
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	Successful completion of Stage 2 of the course or equivalent.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	LESK A.M. *Bioinformatics*. Current Edition. Oxford University Press.
2	HODGMAN C., FRENCH A., and WESTHEAD D. *BIOS Instant Notes: Bioinformatics*. Current Edition. Taylor & Francis.