

MODULE DESCRIPTOR

Module Title

Microbial Biotechnology for Industry

Reference	PL3433	Version	1
Created	October 2022	SCQF Level	SCQF 9
Approved	June 2023	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

To provide students with the ability to examine a range of topics related to the application of microbiology to biotechnology and the bioscience industry.

Learning Outcomes for Module

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

- 1 Demonstrate understanding of the role and applications of biofilms, cell signalling, and molecular biology in medical, environmental and food microbiology.
- 2 Explain the rationale and process for drug discovery from aquatic micro-organisms.
- 3 Explain the role of micro-organisms in the remediation of the environment.
- 4 Examine current topics of interest in the field of microbial biotechnology and industrial applications of microbiology.

Indicative Module Content

Biofilms in medicine, food hygiene and the environment; cell signalling in the environment and its role in pathogenesis; application of molecular biology in environmental, medical and food microbiology; aquatic microbes as a source of pharmaceuticals; exploitation of micro-organisms for environmental clean-up; bioremediation; biodegradation; current topics - will allow delivery to be tailored to current interests and will be influenced by current advances/topics of the time.

Module Delivery

The module is based on lectures with an element of student centered learning and focused tutorials on recently published, topical, research. Appropriate guest seminars will enhance the delivery of the module.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	30	N/A
Non-Contact Hours	120	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

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

Component 1

Type:	Examination	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	Closed book examination				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

Component 1 (CW1) comprises 100% of the module grade. A minimum of a Grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
E	E
F	F
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None, in addition to SCQF level 9 entry requirements or equivalent.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

	None.
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