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MODULE DESCRIPTOR

Module Title

Advanced Microbiology

Reference	AS4033	Version	5
Created	October 2017	SCQF Level	SCQF 10
Approved	May 2011	SCQF Points	15
Amended	July 2018	ECTS Points	7.5

Aims of Module

To provide the student with the ability to assess the role of microbes in the environment, their role indigestion, the potential impact of microbes on humans, and the exploitation of microbes for biotechnological purposes. To provide the students with the ability to understand microbiology and its importance.

Learning Outcomes for Module

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

1	Discuss the impact of microbes on environmental ecosystems.
2	Discuss the application of microbes to biotechnology.
3	Discuss the application of microbes in digestion.
4	Critically assess the importance of microbes to humans and other organisms.

Indicative Module Content

Nitrogen fixation; methane production; microbial population analysis; biotechnological exploitation of microbes; role of microbes in food production; role of microbes in digestion; impact of microbes on humans; impact of microbes on other animals; impact of microbes on plants.

Module Delivery

A combined approach utilising formal lectures, directed reading and student presentations of contemporary research papers.

Indicative Student Workload	Full Time	Part Time
Contact Hours	33	N/A
Non-Contact Hours	117	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		

Module Ref:	AS4033 v5

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, 3
Description:	Unseen, closed book examination				

Component 2

Type:	Coursework	Weighting:	40%	Outcomes Assessed:	4
Description:	An essay based on external reading from the contemporary peer-reviewed literature				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

This module is assessed using the one component detailed in the Assessment Plan. To pass this module, candidates must achieve a grade D or better.

Module Grade	Minimum Requirements to achieve Module Grade:
A	Final mark of 70% or greater and a minimum of 35% in C1 and C2
B	Final mark of between 60-69% and a minimum of 35% in C1 and C2
C	Final mark of between 50-59% and a minimum of 35% in C1 and C2
D	Final mark of between 40-49% and a minimum of 35% in C1 and C2
E	MARGINAL FAIL. Final mark of between 35-39% and a minimum of 35% in C1 and C2
F	FAIL. Final mark of 34% or lower
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	No core text book will be used. Instead recently published scientific papers will form the basis of background material.