MODULE DESCRIPTOR

Module Title

Biomedical Technology Applications

Reference	ASM147	Version	1
Created	January 2018	SCQF Level	SCQF 11
Approved	March 2018	SCQF Points	15
Amended		ECTS Points	7.5

Aims of Module

To provide the students with a theoretical and practical knowledge of the applications of biomedical technology. To enable the student to critically evaluate the underpinning theory and practical use of measurement tools for the recording and transmission of information within biological systems for diagnosis and treatment of diseases.

Learning Outcomes for Module

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

1	Generate, document and interpret experimental data using different measurement tools and assess such tools clinical relevance.
2	Communicate and evaluate methods relevant to biomedical technology using written communication skills.
3	Critically appraise the importance of collecting, analysing and interpreting data to monitor and direct therapeutic intervention.

Indicative Module Content

Health and safety passport, Use of glucometers, blood pressure apparatus, cholesterol monitoring, measurement protocols, validity, reliability, repeatability and reproducibility, detection of analytes and biomarkers (ICP, uPLC, flow cytometer), non and minimally invasive patient monitoring systems, medical imaging.

Module Delivery

This module is delivered in a format of lectures, tutorials and laboratory work supplemented by directed reading and seminars.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	24	N/A
Non-Contact Hours	126	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		

ASSESSMENT PLAN

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

Component 1

Type:	Practical Exam	Weighting:	100%	Outcomes Assessed:	1, 2, 3
Description:	A case study/laboratory report				

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 Module Grade D or better.

Module Grade	Minimum Requirements to achieve Module Grade:
A	Final mark of 70% or greater
B	Final mark of between 60-69%
C	Final mark of between 50-59%
D	Final mark of between 40-49%
E	MARGINAL FAIL. Final mark of between 35-39%
F	FAIL. A mark of less than 35%
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	Practical Applications in Biomedical Engineering Edited by Adriano O. Andrade, Adriano Alves Pereira, Eduardo L. M. Naves and Alcimar B. Soares, ISBN 978-953-51-0924-2 Publisher: InTech
2	A range of scientific papers and journals will be used.