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## MODULE DESCRIPTOR

### Module Title

Introduction To Biomedical Technology			
Reference	AS3148	Version	1
Created	January 2018	SCQF Level	SCQF 9
Approved	March 2018	SCQF Points	15
Amended		ECTS Points	7.5

### Aims of Module

To provide the students with an introduction of biomedical Technology in the context of diagnosis and treatment of diseases. To provide the students with an understanding of the different body systems. To provide the students with an understanding of the different disciplines in biomedical technology.

### Learning Outcomes for Module

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

- 1 Assess the history of biomedical technology
- 2 Discuss the nature and the role of the different body systems
- 3 Understand the importance and relevance of biomedical technology in the diagnosis and treatment of disease
- 4 Discuss the relevance of the different disciplines in biomedical technology

### Indicative Module Content

History of biomedical technology, Interface between biomedical science and technology, overview of the healthcare system and related industries, introduction to biomedical technology disciplines such as bioinformatics, biomaterials, tissue and genetic engineering, medical device, prosthesis, clinical imaging. Organisation of the body, cell physiology, nervous system, locomotor system, cardiovascular system, respiratory system, excretion, skin, immunology and aging.

### Module Delivery

This is a lecture-based module supplemented by directed reading and seminars.

### Indicative Student Workload

	Full Time	Part Time
Contact Hours	36	N/A
Non-Contact Hours	114	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:	Coursework	Weighting:	70%	Outcomes Assessed:	1, 3, 4
Description:	An essay on a particular topic relevant to the subject.				

**Component 2**

Type:	Examination	Weighting:	30%	Outcomes Assessed:	2
Description:	Type Closed book exam				

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

This module is assessed using the two components of assessment as 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:
<b>A</b>	Final aggregate mark of 70% or greater and a minimum of 35% in C1 and C2
<b>B</b>	Final aggregate mark of between 60-69% and a minimum of 35% in C1 and C2
<b>C</b>	Final aggregate mark of between 50-59% and a minimum of 35% in C1 and C2
<b>D</b>	Final aggregate mark of between 40-49% and a minimum of 35% in C1 and C2
<b>E</b>	MARGINAL FAIL. Final aggregate of between 35-39% and a minimum of 35% in C1 and C2
<b>F</b>	FAIL. A mark of less than 35% in either component
<b>NS</b>	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 J Enderle and J Bronzino. Current Edition. *Introduction to Biomedical Engineering*. Elsevier.
- 2 M L. Yarmush, M Toner, R Plonsey, J. D. Bronzino. Current Edition. *Biotechnology for Biomedical Engineers*. CRC Press
- 3 Marieb, E.N. Current Edition. *Essentials of Human Anatomy & Physiology*. Pearson/Benjamin Cummings
- 4 Martini, F. and Nath, J.L. Current Edition. *Fundamentals of Anatomy and Physiology*. Addison-Wesley.
- 5 Tortora, GJ and Derrickson, BH. Current Edition. *Introduction to the Human Body: The Essentials of Anatomy and Physiology*. Wiley.