

Module Details	
Module Title	Renal Technology
Module Code	MHT6014-B
Academic Year	2020/1
Credits	20
School	Department of Biomedical and Electronics Engineering
Subject Area	Medical and Healthcare Technology
FHEQ Level	FHEQ Level 6
Pre-requisites	N/A
Co-requisites	N/A

Contact Hours	
Type	Hours
Lectures	30
Tutorials	12
Directed Study	158

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Academic Year

Module Aims
To bring together multidisciplinary aspects of prior learning to evaluate renal technology in terms of biology, mechanics, technology and healthcare

Outline Syllabus
Renal anatomy, physiology and pathology (part 1 & 2), principles of dialysis (part 1 & 2), dialysis technology (part 1 & 2), vascular access and anticoagulation, infection control, treatment of water for dialysis, biochemistry and nutrition, maintenance and monitoring of water treatment and distributions systems, peritoneal dialysis and transplantation, vascular access monitoring and complications, dialysis adequacy, biofeedback and treatment individualisation, renal replacement therapy in intensive care, the patients view.

Learning Outcomes	
Outcome Number	Description
1	Explain the biology of the kidney and its pathology. Explain the principles of renal replacement therapy. Critically evaluate healthcare technologies for renal dialysis systems. Explain the principles of infection control in the dialysis unit. Explain the principles of water treatment for renal therapy. Evaluate dialysis adequacy, complications and feedback.
01	Explain the biology of the kidney and its pathology. Explain the principles of renal replacement therapy. Critically evaluate healthcare technologies for renal dialysis systems. Explain the principles of infection control in the dialysis unit. Explain the principles of water treatment for renal therapy. Evaluate dialysis adequacy, complications and feedback.
2	Exercise significant judgement in the context of integrated and multidisciplinary healthcare technology.
02	Exercise significant judgement in the context of integrated and multidisciplinary healthcare technology.
3	Apply scientific method; solve problems systematically.
03	Apply scientific method; solve problems systematically.

Learning, Teaching and Assessment Strategy
Knowledge disseminated and concepts explored in lectures, with learning supported by tutorial problems and tutor-lead classroom discussion. Formative assessment and oral feedback given in tutorials. The formal examination assesses all of the learning outcomes expressed in the descriptor, while the coursework allows skills to be demonstrated more fully. PSRB Requirements SM1, SM2, SM3, EA1, EA2, EA3, EA4, D1, D2, ET1, ET2, ET3, ET4, ET5, ET6, EP1, EP2, EP4, EP5, EP6, EP7

Mode of Assessment				
Type	Method	Description	Length	Weighting
Summative	Examination - Open Book	Online, open book exam	2 hour	35%
Summative	Examination - Open Book	Online, open book exam	2 hour	35%
Summative	Coursework	Coursework 1000 words or equivalent	N/A	15%
Summative	Coursework	Coursework 1000 words or equivalent	N/A	15%

Reading List
To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

