

Renal Technology

Module Code:	MHT6014-B
Academic Year:	2018-19
Credit Rating:	20
School:	Department of Biomedical and Electronics Engineering
Subject Area:	Medical and Healthcare Technology
FHEQ Level:	FHEQ Level 6
Module Leader:	Dr Peter Twigg

Additional Tutors:

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	36
Tutorials	12
Directed Study	148
Examinations DO NOT USE	4

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Academic Year (Sept - May)

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.

Module Learning Outcomes

On successful completion of this module, students will be able to...

- 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.
- 2 Exercise significant judgement in the context of integrated and multidisciplinary healthcare technology.
- 3 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.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Examination - closed book	Closed book exam	2 hours	35%	No
Summative	Examination - closed book	Closed book exam	2 hours	35%	No
Summative	Coursework	Coursework	1000 words or equivalent	15%	No
Summative	Coursework	Coursework	1000 words or equivalent	15%	Yes

Legacy Code (if applicable)

ENG3310L

Reading List

To view Reading List, please go to [rebus:list](#).