

Module Details	
Module Title	Clinical Instrumentation and Imaging
Module Code	MHT4004-B
Academic Year	2020/1
Credits	20
School	Department of Biomedical and Electronics Engineering
Subject Area	Medical and Healthcare Technology
FHEQ Level	FHEQ Level 4
Pre-requisites	N/A
Co-requisites	N/A

Contact Hours	
Type	Hours
Tutorials	11
Online Lecture (Synchronous)	22
Tutorials	11
Directed Study	164

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 1

Module Aims
To understand the function and operating principles of clinical instrumentation and the fundamental principles of healthcare equipment management.

Outline Syllabus
Diagnostic clinical instrumentation and therapeutic medical devices. Clinical imaging systems and image processing.
Clinical equipment management - quality systems, reliability, adverse incidents.

Learning Outcomes	
Outcome Number	Description
01	Explain the function and operating principles of a range of clinical instrumentation and imaging
02	Explain the principles and methodology of clinical equipment management for each stage of the equipment management life-cycle
02	Identify appropriate instrumentation and imaging to meet a range of clinical needs
03	Demonstrate good infection control awareness
05	Demonstrate logical thought processes
06	Communicate complex ideas in simple terms

Learning, Teaching and Assessment Strategy
Core content will be delivered through key lectures and directed reading, providing students with the opportunity to acquire the information to enhance their knowledge and understanding of subject LO 1,2,3,4. This will be complemented by group discussions and tutorials to allow students to apply this learning to specific issues. Discipline skills will be developed in open-ended problem solving, tackled by working in small groups supported by members of academic staff LO 1,2,3,4,5,6. Directed study provides students with the opportunity to undertake guided reading and to develop their own portfolio of learning to enhance transferable skills and knowledge LO 1,2,3,4. The VLE will be used to provide access to online resources, lecture notes and external links to websites of interest. Assessment 1: Coursework will involve investigation of, and reporting on, the function and operating principles of specified clinical instruments LO 1,2,5,6. Assessment 2: Open book examination in a long answer format will assess the wider module outcomes LO 1,2,3,4,5,6.

Mode of Assessment				
Type	Method	Description	Length	Weighting
Summative	Examination - Open Book	Online open book - Long answer exam	2 hour	70%
Summative	Coursework	Investigative Report (2000 words)	N/A	30%
Formative	Coursework	Past exam paper to be completed prior to assessment and review during tutorial session	2 hours	N/A

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.

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