Module Descriptor

Equipment and Maintenance Management

Module Code: MHT5004-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 5
Module Leader: Dr Peter Twigg

Additional Tutors:

Pre-requisites:
Co-requisites:

Contact Hours

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Lectures</td>
<td>36</td>
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<tr>
<td>Tutorials</td>
<td>12</td>
</tr>
<tr>
<td>Directed Study</td>
<td>150</td>
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<td>Examinations DO NOT USE</td>
<td>2</td>
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Availability Periods

<table>
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<tr>
<th>Occurrence</th>
<th>Location/Period</th>
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<tr>
<td>BDA</td>
<td>University of Bradford / Academic Year (Sept - May)</td>
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Module Aims
Evaluate the fundamental principles of maintenance management, the various maintenance strategies and the associated requirements and benefits.

Outline Syllabus
Quality systems
Record keeping
Pre-purchase
Acceptance and safety testing
Planned preventative maintenance and repair
Calibration/quality assurance
Reliability, repeatability, validity, limitations
Decontamination
Decommissioning and disposal
Radiological protection issues
Special waste, clinical waste, radioactive waste, WEEE
Incident investigation/reports through evaluation of factual evidence

Module Learning Outcomes

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

1. Describe each stage of the equipment management life-cycle and how this is implemented within healthcare. Understand quality systems and their place in the delivery of modern healthcare
   Explain principles supporting the selection of a medical device that will ensure it is fit for purpose including the ability to develop and evaluate basic specifications to meet user and service requirements
   Understand engineering principles and methodology as applied to maintenance, calibration and quality assurance of a wide range of commonly used equipment within healthcare

2. Demonstrate good infection control awareness
   Operate within legislation guidance, policies and procedures

3. Use and develop analytical skills
   Demonstrate attention to detail
   Demonstrate logical thought processes
   Demonstrate problem solving
   Use clear written communication
   Communicate complex ideas in simple terms

Learning, Teaching and Assessment Strategy

Concepts, theories and principles explored in formal lectures supported by seminars, tutorials and directed reading. Discipline skills developed in open-ended problem solving, tackled by working in small groups supported by members of academic staff. Oral feedback is given during seminars. The assessment will examine the wider learning outcomes expressed in the descriptor.

Mode of Assessment

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<tr>
<th>Type</th>
<th>Method</th>
<th>Description</th>
<th>Length</th>
<th>Weighting</th>
<th>Final Assess'</th>
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<tbody>
<tr>
<td>Summative</td>
<td>Examination - closed book</td>
<td>2 Hour Examination (SEM 2)</td>
<td>2 hours</td>
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Legacy Code (if applicable)
ENG2103L

Reading List
To view Reading List, please go to rebus:list.