

# Programme Specification (Postgraduate) Date created/amended: For 2018/19 entry

### 1. Programme title(s):

- MSc Post Mortem Radiology for Natural and Forensic Death Investigation
- PG Dip Post Mortem Radiology for Natural and Forensic Death Investigation
- PG Cert Post Mortem Radiology for Natural and Forensic Death Investigation

### 2. Awarding body or institution:

University of Leicester

### 3. a) Mode of study:

Full time, part time and module only (NB that part-time and module only is not available for international students)

# b) Type of study:

Campus based

### 4. Registration periods:

### MSc:

- The normal period of registration for the MSc is 12 months full time and 27 months part time
- The maximum period of registration for the MSc is 24 months full time and 48 months part time

# PG Dip

- The normal period of registration for the PG Dip is 12 months full time and 24 months part time
- The maximum period of registration for the PG Dip is 24 months full time and 48 months part time

### PG Cert

- The normal period of registration for the PG Cert is 6 months full time and 12 months part time
- The maximum period of registration for the PG Cert is 12 months full time and 18 months part time

### 5. Typical entry requirements:

# PG Certificate

- A UK honours degree (2:2 or above in a relevant subject, or equivalent) or a minimum of 60 credits (inclusive of research) at level 6
- Provision two references, one giving emphasis to academic ability and the second relevant to relevant professional work experience;
- If English is not your first language an IELTS score of 6.5 or equivalent prior to the course is essential (as set out in Senate Regulation 1). If students do not currently meet our requirements, there are two ways that they can improve their English language skills at Leicester before starting their degree i.e. either a pre-sessional language course at our English Language Teaching Unit (ELTU) or a foundation course at the <a href="Leicester International Study Centre">Leicester International Study Centre</a> which will enable them to meet our English language requirements;
- Most international students (non-EU) who will spend more than six months studying in the UK will need to apply for a Tier 4 Visa and provide evidence of study to be able to enter the UK as a student. Nationals of some countries will also need a visa even if their course lasts less than six months.

### PG Diploma and MSc

In addition to the above, in the case of the Diploma and Masters there will be more advanced instruction involving the interpretation of basic computed tomography images. To deal with this, applicants should ideally have a good working knowledge of anatomy and familiarity with medical imaging. The candidate should demonstrate on application such experience

### 6. Accreditation of Prior Learning:

Students can APEL half the taught components of the degree programme (as in accordance with Senate Regulation 2 and the University Policy on the Accreditation of Prior Learning) i.e. 30 credits maximum for the PG Cert and 60 credits maximum for the PG Dip and MSc. Credits must be at Level 7 and must be relevant to the programme. Normally the prior learning must have been achieved within the last five years. This will be considered on an individual basis by the course directors once evidence of the APL credits has been submitted to the course administrator.

### 7. Programme aims:

- To respond to the national and international need for pathologists, forensic pathologists and radiologists
  to have upskilled knowledge, skills and competencies in the use of post mortem radiology in order to
  apply this new approach to natural and forensic adult death investigation in their own clinical practice
  from discovering of a body to constructing a report to the Coroner or police;
- To raise students' competence and confidence by providing a positive learning environment where they actively participate in their own academic and professional development (and research development for MSc students);
- To effectively appraise their own areas of clinical practice in relation to the current research evidence base.

### More specifically

- The PG Cert aims to provide students with the foundational skills to work in this field of practice.
- The PG Dip aims to provide students with the advanced skills and specialist experience to undertake and interpret post mortem adult natural and forensic radiology.
- The MSc aims to provide students with the opportunity to undertake applied research to further the knowledge base of the subject area providing them with the mastery experience to lead research in their own workplace and implement servicer improvement using change management theory.

### 8. Reference points used to inform the programme specification:

The MSc Post Mortem Radiology for Natural and Forensic Death Investigation will appointed its own external examiner through standard University procedures. The role of the external examiner is to verify standards and ensure consistency of exam questions, marking and marking schemes.

The programme is steered and managed by a Programme Development Committee which includes the programme director, module leaders and external advisors (including service users and students). The external advisors are specialised doctors, radiologists, coroners and police who work in the field of adult death investigation. Throughout the programme students are asked to evaluate modules and lecturers are also given the opportunity to provide feedback to continually improve quality.

In addition to the Programme Development Committee, each module has a steering group which meets before and after each module to ensure feedback is evaluated and implemented to ensure quality and change become integral to the programme modules.

The following documents have been used to provide benchmarking and inform the content and standard of the programme:

QAA (2015) The UK Quality Code for Higher Education

# http://www.gaa.ac.uk/assuring-standards-and-quality/the-quality-code

- QAA (2015) Characteristics of a Masters Degree
   http://www.gaa.ac.uk/en/Publications/Documents/Masters-Degree-Characteristics-15.pdf
- QAA (2009) Institutional Audit: University of Leicester <a href="http://www.qaa.ac.uk/reviews-and-reports/provider?UKPRN=10007796#.VvZfRvNFCcw">http://www.qaa.ac.uk/reviews-and-reports/provider?UKPRN=10007796#.VvZfRvNFCcw</a>
- QAA (2008) The Framework for Higher Education Qualifications in England, Wales and Northern Ireland
   <a href="http://www.qaa.ac.uk/publications/information-and-quidance/publication?PublD=2718#.VvZqPPNFCcw">http://www.qaa.ac.uk/publications/information-and-quidance/publication?PublD=2718#.VvZqPPNFCcw</a>
- QAA (2002) Benchmark Statements: Masters Degrees: Medicine http://www.gaa.ac.uk/en/Publications/Documents/Subject-benchmark-statement-Medicine.pdf
- QAA (2001) Benchmark Statements: Health Care Programmes: Radiography <a href="http://www.gaa.ac.uk/en/Publications/Documents/Subject-benchmark-statement-Health-care-programmes---Radiography.pdf">http://www.gaa.ac.uk/en/Publications/Documents/Subject-benchmark-statement-Health-care-programmes---Radiography.pdf</a>
- Royal College of Radiologists/Royal College of Pathologists (2012) Statement on Standards for Medico-Legal Post-Mortem Cross-Sectional Imaging in Adults <a href="https://www.rcr.ac.uk/sites/default/files/publication/FINALDOCUMENT\_PMImaging\_Oct12.pdf">https://www.rcr.ac.uk/sites/default/files/publication/FINALDOCUMENT\_PMImaging\_Oct12.pdf</a>

University of Leicester (2016) Academic Quality Standards: Accreditation of Prior Learning <a href="http://www2.le.ac.uk/offices/sas2/quality/accreditation-of-prior-learning">http://www2.le.ac.uk/offices/sas2/quality/accreditation-of-prior-learning</a>

 University of Leicester (2016) Academic Quality Standards: Codes of Practice <a href="http://www2.le.ac.uk/offices/sas2/quality/codes">http://www2.le.ac.uk/offices/sas2/quality/codes</a>

University of Leicester (2016) Academic Quality Standards: Code of Practice for the Development, Approval and Modification of Taught Provision. <a href="http://www2.le.ac.uk/offices/sas2/quality/codes/documents/programmeapproval.pdf">http://www2.le.ac.uk/offices/sas2/quality/codes/documents/programmeapproval.pdf</a>

 University of Leicester (2016) Academic Quality Standards: Code of Practice for Personal Support for Students on Taught Programmes http://www2.le.ac.uk/offices/sas2/quality/documents/personalsupport.pdf

University of Leicester (2016) Academic Quality Standards: Student Feedback <a href="http://www2.le.ac.uk/offices/sas2/quality/student-feedback">http://www2.le.ac.uk/offices/sas2/quality/student-feedback</a>

- University of Leicester (2016) Academic Quality Standards: Student Handbook Production <a href="http://www2.le.ac.uk/offices/sas2/quality/handbook-production">http://www2.le.ac.uk/offices/sas2/quality/handbook-production</a>
- University of Leicester (2016) Transferable Skills Framework http://www2.le.ac.uk/offices/careers-new/build-your-skills/skills
- University of Leicester (2013/2014) Destination of Postgraduate Leavers http://www2.le.ac.uk/offices/careers-new/information/cds/destinations/postgrads
- University of Leicester (2011) Learning and Teaching Strategy 2011-2016 <a href="http://www2.le.ac.uk/offices/sas2/quality/learnteach">http://www2.le.ac.uk/offices/sas2/quality/learnteach</a>

Once the programme begins the following university quality assurance procedures will also inform benchmarking, content and standard to the programme:

- University of Leicester (2016) Academic Quality Standards: Annual Development Review http://www2.le.ac.uk/offices/sas2/quality/annualreview
- University of Leicester (2016) Academic Quality Standards: External Examiners' Reports (annual) http://www2.le.ac.uk/offices/sas2/assessments/external
- University of Leicester (2016) Academic Quality Standards: Periodic Development Review http://www2.le.ac.uk/offices/sas2/quality/periodicreview;
- University of Leicester (2016) Academic Quality Standards: Student Feedback http://www2.le.ac.uk/offices/sas2/quality/student-feedback

# 9. Programme Outcomes:

The programme aims to enable students to extend and develop their professional career particularly in pathology, forensic pathology, radiology and imaging. More specifically:

<u>The PG Cert</u> will provide students with the foundational skills to work in this field of practice. Therefore as a result of successfully completing the PG Cert in Post Mortem Radiology for Natural and Forensic Death Investigation, students will be able to:

Gain foundational skills related to a general understanding of the field of practice. It will give
students an overview of all aspects of forensic imaging for both natural and unnatural death from
discovery of an adult body to constructing a report to the Coroner or police.

<u>The PG Dip</u> will provide students with the advanced skills and specialist experience to undertake and interpret post mortem adult natural and forensic radiology. Therefore, as a result of successfully completing the PG Dip in Post Mortem Radiology for Natural and Forensic Death Investigation, students will be able to:

- Critically apply advanced knowledge and employ specialist skills in post mortem radiology for natural and forensic adult death investigation to enable them to incorporate medical imaging into their own established forensic practice depending upon their current professional status and job roles:
  - As radiologists extend their image interpretation skills to the investigation of adult death;
  - As pathologists to interpret imaging as an adjunct to the autopsy or to use images as an alternative to the autopsy with assistance from the radiologist;
  - As a radiographer to perform all types of forensic imaging and assist the radiologists and/or pathologists with image interpretation.
- 2. Evaluate the management and operation of running a post mortem radiology service so as to assist in the implementation of service improvement in their own workplace.

<u>The MSc</u> will provide students with the opportunity to undertake applied research to further the knowledge base of the subject area providing them with the mastery experience to lead research in their own workplace and implement servicer improvement using change management theory. Therefore as a result of successfully completing the MSc in Post Mortem Radiology for Natural and Forensic Death Investigation, students will be able to:

- 3. Design, develop, undertake and defend a supervised research project, by applying the knowledge and skills gained from the taught modules they have studied;
- 4. Demonstrate research project management skills including working with a research supervisor and, where appropriate, research ethics and governance procedures;

5.	Formulate the writing of a research report in the form of a 20,000 word dissertation (including a practice development plan) using critical analysis, discussion and synthesis.

# Degree of Master of Science (MSc)

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?					
(a) Discipline specific knowledge and competencies							
	Knowledge						
Identify and distinguish the components and management of the use of post mortem radiology including all aspects of interpretation, diagnostics and reports of scans for natural and forensic adult death investigation	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision	Essays, dissertation, examinations / written case studies, formative assessments during taught days.					
Critically evaluate the elements of the research process and critical appraisal in relation to applied health research.							
	Concepts						
Recognise and conclude how to interpret, evaluate and apply theory of the concepts of the various areas of post mortem radiology for natural and forensic adult death investigation including examination protocols, procedures, reporting findings and research skills.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision	Essays, dissertation, examinations / written case studies, formative assessments during taught days.					
	Techniques						
Demonstrate advanced skills and clinical competencies in the use of post mortem computed tomography for the investigation of natural and forensic adult death investigation including clinical interpretation, diagnostics and reporting of scans.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision	Essays, dissertation, examinations / written case studies, formative assessments during taught days.					
Critical analysis							
Critically review, debate and discuss literature on the use of post mortem radiology for natural and forensic adult death investigation.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision	Essays, dissertation, examinations / written case studies, formative assessments during taught days.					
Compare and contrast complex theoretical and technical evidence accurately and rigorously.							

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?					
	Presentation						
Exhibit the ability to present orally and in writing (individually and as a group) specifically case study presentations, topic debates and critical appraisal of published literature.	Seminars, group work, project supervision	Essays, dissertation, examinations / written case studies, formative assessments during taught days, presentations.					
Discriminate between relevant and non-relevant material and to prioritise and present in a logical manner.							
	Appraisal of evidence						
Critically appraise published research literature in relation to post mortem imaging.  Examine outcomes of published	Lectures, tutorials, directed reading, seminars, problem solving classes, project supervision.	Essays, dissertation, examinations / written case studies, formative assessments during taught days, presentations.					
evidence in relation to clinical practice protocols within adult death investigation.							
	(b) Transferable skills  Research skills						
Recognise and describe all elements of the research process and apply this to study design and critical appraisal in applied health research.	Lectures, directed reading, departmental research seminars, group work, research supervision.	Essays, dissertation, examinations / written case studies, formative assessments during taught days, presentations.					
Illustrate how to interpret and apply concepts in both qualitative and quantitative research methodology.							
	Communication skills						
Critically develop essay writing, oral presentation skills, case report writing and effective communication skills.	Seminars, tutorials, lectures, problem solving classes, project supervision.	Essays, dissertation, examinations / written case studies, formative assessments during taught days, presentations.					
Data presentation							
Critically analyse and present basic clinical data using a variety of graphical methods appropriate to the given audience.	Seminars, tutorials, lectures, problem solving classes, project supervision.	Essays, dissertation, examinations / written case studies, formative assessments during taught days, presentations.					
Appraise the strengths and weakness of research papers and evidence.							

Intended Learning	Teaching and Learning Methods	How Demonstrated?				
Outcomes	Information technology					
Employ effective skills in IT basic office packages such as Word, PowerPoint and handling bibliographic data/information  For those undertaking a quantitative dissertation employ the ability to use statistical IT packages to analyse data.  For those undertaking a qualitative dissertation employ the ability to use software for qualitative analysis.	Seminars, tutorials, lectures, debates, case study presentations, project supervision, IT training	Essays, dissertation, examinations / written case studies, formative assessments during taught days, presentations.				
	Problem solving					
Interpret post mortem radiology	Clinical demonstrations, case study	Essays, examinations / written case				
images within single and whole body cases and use problem solving skills to consider the published evidence and justify the appropriate written cause of death.	presentations, seminars, tutorials, problem solving classes, practical classes, project supervision.	studies, formative assessments during taught days, presentations.				
Execute research problem solving.						
	Working relationships					
Demonstrate effective communication and ability to work effectively in groups/teams to problem solve and critically appraise evidence in image interpretation.	Clinical demonstrations, seminars, lectures, group work, tutorials, problem solving classes, practical classes, project supervision.	Essays, examinations / written case studies, formative assessments during taught days, presentations.				
	Managing learning					
Reflect, appraise and evaluate own learning, showing the ability to identify areas of academic and clinical practice that require increased acquisition of skills.  Demonstrate organisational skills, ability to perform project management and time management.	Clinical demonstrations, seminars, lectures, group work, tutorials, problem solving classes, practical classes, project supervision.	Essays, dissertation, examinations / written case studies, formative assessments during taught days, presentations.				
Literation of the second secon	Career management	Discontinue library				
Identify and appraise career progression options through updating knowledge on current vacancies within the area of post mortem radiology and networking with other students, course staff and invited lecturers.  Apply knowledge and skills to long term career goals and employability	Tutorials.	Discussion within personal tutorial sessions, postgraduate personal development plans, effective curriculum vitae.  Student feedback on career destinations approximately six months after graduating (HESA DHLE).				

# Post Graduate Diploma (PG Dip)

Intended Learning	Teaching and Learning Methods	How Demonstrated?			
Outcomes					
(a) Discipline specific knowledge and competencies  Knowledge					
Identify and distinguish the components and management of the use of post mortem radiology including all aspects of interpretation, diagnostics and reports of scans for natural and forensic adult death investigation  Critically evaluate the elements of the research process and critical appraisal in relation to applied health research.	Clinical demonstrations, lectures, discussion, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, debate, Q&A, independent study	Essays, examinations / written case studies, formative assessments during taught days.			
	Concepts				
Recognise and conclude how to interpret, evaluate and apply theory of the concepts of the various areas of post mortem radiology for natural and forensic adult death investigation including examination protocols, procedures, reporting findings and research skills.	Clinical demonstrations, lectures, discussion, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, Q&A, independent study, debate	Essays, examinations / written case studies, formative assessments during taught days.			
	Techniques				
Demonstrate advanced skills and clinical competencies in the use of post mortem computed tomography for the investigation of natural and forensic adult death investigation including clinical interpretation, diagnostics and reporting of scans.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, Q&A, independent study, debate	Essays, examinations / written case studies, formative assessments during taught days.			
	Critical analysis				
Critically review, debate and discuss literature on the use of post mortem radiology for natural and forensic adult death investigation.  Compare and contrast complex	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, Q&A, independent study, debate	Essays, examinations / written case studies, formative assessments during taught days.			
theoretical and technical evidence accurately and rigorously.					

Intended Learning	Teaching and Learning Methods	How Demonstrated?
Outcomes	Duscoutation	
Exhibit the ability to present orally and in writing (individually and as a group) specifically case study presentations, topic debates and critical appraisal of published literature.  Discriminate between relevant and	Seminars, group work, project supervision, Q&A, independent study, debate	Essays, examinations / written case studies, formative assessments during taught days, presentations.
non-relevant material and to prioritise and present in a logical manner.		
	Appraisal of evidence	
Critically appraise published research literature in relation to post mortem imaging.  Examine outcomes of published	Lectures, tutorials, directed reading, seminars, problem solving classes, project supervision, Q&A, independent study, debate	Essays, examinations / written case studies, formative assessments during taught days, presentations.
evidence in relation to clinical practice protocols within adult death investigation.		
	(b) Transferable skills	
December and december all	Research skills	
Recognise and describe all elements of the research process and critical appraise applied health research.	Lectures, directed reading, departmental research seminars, group work, research supervision, Q&A, independent study, debate.	Essays, examinations / written case studies, formative assessments during taught days, presentations.
	Communication skills	
Critically develop essay writing, oral presentation skills, case report writing and effective communication skills.	Seminars, tutorials, lectures, problem solving classes, project supervision, Q&A, independent study, debate.	Essays, examinations / written case studies, formative assessments during taught days, presentations.
	Data presentation	
Appraise the strengths and weakness of research papers and evidence.	Seminars, tutorials, lectures, problem solving classes, project supervision, Q&A, independent study, debate.	Essays, examinations / written case studies, formative assessments during taught days, presentations.
	Information technology	
<b>Employ</b> effective skills in IT basic office packages such as Word and PowerPoint.	Seminars, tutorials, lectures, debates, case study presentations, project supervision, IT training, Q&A, independent study.	Essays, examinations / written case studies, formative assessments during taught days, presentations.
	Problem solving	
Interpret post mortem radiology images within single and whole body cases and use problem solving skills to consider the published evidence and justify the appropriate written cause of death.	Clinical demonstrations, case study presentations, seminars, tutorials, problem solving classes, practical classes, project supervision, Q&A, independent study, debate.	Essays, examinations / written case studies, formative assessments during taught days, presentations.

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?		
Working relationships				
Demonstrate effective communication and ability to work effectively in groups/teams to problem solve and critically appraise evidence in image interpretation.	Clinical demonstrations, seminars, lectures, group work, tutorials, problem solving classes, practical classes, project supervision, Q&A, independent study, debate.	Essays, examinations / written case studies, formative assessments during taught days, presentations.		
	Managing learning			
Reflect, appraise and evaluate own learning, showing the ability to identify areas of academic and clinical practice that require increased acquisition of skills.  Demonstrate organisational skills, ability to perform project management and time management.	Clinical demonstrations, seminars, lectures, group work, tutorials, problem solving classes, practical classes, project supervision, Q&A, independent study.	Essays, examinations / written case studies, formative assessments during taught days, presentations.		
	Career management			
Identify and appraise career progression options through updating knowledge on current vacancies within the area of post mortem radiology and networking with other students, course staff and invited lecturers.  Apply knowledge and skills to long term career goals and employability	Tutorials.	Discussion within personal tutorial sessions, postgraduate personal development plans, effective curriculum vitae.  Student feedback on career destinations approximately six months after graduating (HESA DHLE).		

# Post Graduate Certificate (PG Cert)

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?				
	(a) Discipline specific knowledge and competencies					
Identify and distinguish the components and management of the use of post mortem radiology including all aspects of interpretation, diagnostics and reports of scans for natural and forensic adult death investigation  Critically evaluate the elements of the research process and critical appraisal in relation to applied health research.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, Q&A, independent study, debate	Essays, formative assessments during taught days.				
	Concepts					
Recognise and conclude how to interpret, evaluate and apply theory of the concepts of the various areas of post mortem radiology for natural and forensic adult death investigation including examination protocols, procedures, reporting findings and research skills.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, Q&A, independent study, debate	Essays, formative assessments during taught days.				
	Techniques					
Demonstrate foundational skills and practical application in the use of post mortem computed tomography for the investigation of natural and forensic adult death investigation including clinical interpretation, diagnostics and reporting of scans.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, Q&A, independent study, debate	Essays, formative assessments during taught days.				
	Critical analysis					
Critically review, debate and discuss literature on the use of post mortem radiology for natural and forensic adult death investigation.	Clinical demonstrations, lectures, tutorials, directed reading, seminars, problem solving classes, practical classes, project supervision, Q&A, independent study, debate	Essays, formative assessments during taught days.				
Presentation						
Exhibit the ability to present orally and in writing (individually and as a group) critical appraisal of published literature.  Discriminate between relevant and non-relevant material and to	Seminars, group work, project supervision, Q&A, independent study, debate	Essays, formative assessments during taught days.				
prioritise and present in a logical manner.						

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?				
Appraisal of evidence						
Critically appraise published research literature in relation to post mortem imaging.  Examine outcomes of published evidence in relation to clinical practice protocols within adult death investigation.	Lectures, tutorials, directed reading, seminars, problem solving classes, project supervision, Q&A, independent study, debate.	Essays, formative assessments during taught days.				
	(b) Transferable skills					
	Research skills					
Recognise and describe all elements of the research process and critical appraise applied health research.	Lectures, directed reading, departmental research seminars, group work, project supervision, Q&A, independent study, debate.	Essays, formative assessments during taught days.				
	Communication skills					
Critically develop essay writing, oral presentation skills, case report writing and effective communication skills.	Seminars, tutorials, lectures, problem solving classes, project supervision, Q&A, independent study, debate.	Essays, formative assessments during taught days.				
	Data presentation					
Appraise the strengths and weakness of research papers and evidence.	Seminars, tutorials, lectures, problem solving classes, project supervision, Q&A, independent study, debate.	Essays, formative assessments during taught days.				
	Information technology					
Employ effective skills in IT basic office packages such as Word and PowerPoint.	Seminars, tutorials, lectures, debates, case study presentations, project supervision, IT training, Q&A, independent study.	Essays, formative assessments during taught days.				
	Problem solving					
Use problem solving skills to consider the published evidence and justify the appropriate written cause of death.	Clinical demonstrations, case study presentations, seminars, tutorials, problem solving classes, practical classes, project supervision, Q&A, independent study, debate.	Essays, formative assessments during taught days.				
Domanatrate effective	Working relationships	Focus formative accessors and display				
Demonstrate effective communication and ability to work effectively in groups/teams to problem solve and critically appraise evidence in image interpretation.	Clinical demonstrations, seminars, lectures, group work, tutorials, problem solving classes, practical classes, project supervision, Q&A, independent study, debate.	Essays, formative assessments during taught days.				

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
	Managing learning	
Reflect, appraise and evaluate own learning, showing the ability to identify areas of academic and clinical practice that require increased acquisition of skills.  Demonstrate organisational skills, ability to perform project management and time management.	Clinical demonstrations, seminars, lectures, group work, tutorials, problem solving classes, practical classes, project supervision.	Essays, formative assessments during taught days.
	Career management	
Identify and appraise career progression options through updating knowledge on current vacancies within the area of post mortem radiology and networking with other students, course staff and invited lecturers.  Apply knowledge and skills to long term career goals and employability	Tutorials.	Discussion within personal tutorial sessions, postgraduate personal development plans, effective curriculum vitae.  Student feedback on career destinations approximately six months after graduating (HESA DHLE).

### 10. Special features

The program will be hosted at the East Midlands Forensic Pathology Unit (EMFPU) based at the Leicester Royal Infirmary (University Hospitals of Leicester NHS Trust). The EMFPU is a Home Office recognised Group Practice that combines high quality research covering a wide range of aspects of forensic pathology and imaging with a forensic pathology service provision to the East Midlands and other national and international organisations. This means that students will have access to high quality, experienced lecturers from all aspects of Post Mortem Radiology.

The principal types of work undertaken by the Unit members include:

- Assisting the eight coroner's jurisdictions of the East Midlands in providing a 24-hour service, 365
  days a year suspicious and homicide forensic pathology service for the five East Midlands police
  forces (Leicestershire, Nottinghamshire, Northamptonshire, Lincolnshire and Derbyshire);
- Providing autopsy examinations as a pathologist independent to the NHS Trust where a death has
  occurred or where a death involves non-suspicious trauma;
- Assisting Leicester Police's Serious Collision Unit by investigating all road related fatalities for HM Coroners of Leicestershire and Northamptonshire;
- Undertaking injury opinion work to police forces, courts and solicitors throughout England and Wales;
- Undertaking so-called 'defence autopsies';
- A national and international mass fatality service provision.

This MSc programme is the first of its kind in the world with more than 1000 consented post mortem radiology cases spanning the spectrum of natural to unnatural death creating synergy between research and learning for our students. In addition, the programme has a new state of the art dedicated teaching room with Mac computers including a central Mac facilitated database, providing the latest technology to enhance the student learning experience. The NHS radiology network or secure internet DropBox facility will be used for case data transfer box for all students (student dependent).

The principle mortuary and radiology facilities for the EMFPU are based at the Leicester Royal Infirmary. These will be used for practical demonstrations and teaching.

The EMFPU are very experienced and successful in providing educational programs with students locally, nationally and internationally studying e.g. PhD, MD, MSc, BSc as well as undergraduate and postgraduate special visits. In turn this will be complementary to the new MSc, PG Dip and PG Cert Post Mortem Radiology for Natural and Forensic Death Investigation.

### 11. Indicators of programme quality

The programme is appointing an external examiner who will give an external assessment of programme content and quality. The programme will be steered and managed by a development committee. The external examiner will also be a member of the programme / departmental board of studies which is chaired by the programme director. Other indicators of programme quality will include:

- External Examiner Reports
- Student programme and module level feedback
- Lecturer feedback
- Annual Development Review
- Periodic Review
- QAA Institutional Review
- HESA DHLE

It is also intended in the future to apply for accreditation with the International Society of Forensic Radiology and Imaging, the Royal College of Radiologists and the Royal College of Pathologists.

### 12. Scheme of Assessment:

As defined in <u>Senate Regulation 6:</u> Regulations governing taught postgraduate programmes of study.

A varied approach to assessment is used which allows students to demonstrate their knowledge and their own particular strengths, independent of their culture and language background. Modules are assessed by essays, case study reports and presentation (and dissertation for MSc students). All assessed elements within each module will have 50% as its pass mark. There is no compensation within modules as described in appendix 4b.

The exception also is for single and whole body case reports which will carry a pass/fail criteria. This relates specifically to the following modules:

- Advanced Post Mortem Radiology, Adult Natural Death
- Advanced Post Mortem Radiology, Adult Unnatural Death I
- Advanced Post Mortem Radiology, Adult Unnatural Death II

The criteria of which can be viewed in appendix 4b.

### 13. Progression points

As defined in Senate Regulation 6: Regulations governing taught postgraduate programmes of study.

Progression through the programme will be as follows and will comply with standard university procedures:

- PG Cert successful completion of 60 credits of modules
- PG Dip successful completion of a further 60 credits of modules
- MSc successful completion of the additional dissertation module (60 credits)

Students may only be awarded one of the above i.e. PG Cert, PG Dip or MSc. No student may be awarded more than one of the above qualifications.

In cases where a student has failed to meet a requirement to progress he or she will be required to withdraw from the course and a recommendation will be made to the Board of Examiners for an intermediate award or institutional credits where appropriate.

### 14. Rules relating to re-sits or re-submissions:

As defined in Senate Regulation 6: Regulations governing taught postgraduate programmes of study.

Students will be allowed to re-sit assessments in relation to an individual module on one occasion only. The number of modules where resubmissions are allowed will be in accordance with Senate Regulation 6. The mark obtained for resubmissions will be capped at 50%.

#### 15. External Examiners reports

The External Examiners report will be included following receipt of first report.

# 16. Additional features

The course commences in September each year (the precise date to be agreed by the Board of Studies). Overseas students are encouraged to submit their applications as early as possible before the end of July.

### **Appendix 1: Programme structure**

### Overview

The MSc in Post Mortem Radiology for Natural and Forensic Death Investigation is designed to provide detailed training and education in both theory and practical techniques so as to advance your knowledge and skills in incorporating this innovation into your clinical everyday practice.

The outline of the programme structure in relation to the awards available is presented in the following table.

Pathway	Module code	Module type	Module title	Credits
PG Cert		Core	Introduction to Post Mortem Radiology	30
60 credits		Core	Practical aspects of Post Mortem Radiology	30
		Core	Advanced Post Mortem Radiology – Adult natural death	30
PG Dip		Optional	Advanced Post Mortem Radiology – Adult unnatural death I	15
120 credtis		Optional	Advanced Post Mortem Radiology – Adult unnatural death II	15
	Optional for PG Di Core for MSc	Optional for PG Dip Core for MSc	Research designs in Applied Health	15
MSc 180 credits		Core	Dissertation	60

# **Pre-requisites**

- The modules that make up the PG Cert i.e. Introduction to Post Mortem Radiology and Practical Aspects of Post Mortem Radiology are a pre-requisite to all other modules apart from the Research Designs in Applied Health and Dissertation modules.
- The Research Designs in Applied Health module is a pre-requisite to the Dissertation module.

# **Appendix 2: Module specifications**

See module specification database <a href="http://www.le.ac.uk/sas/courses/documentation">http://www.le.ac.uk/sas/courses/documentation</a>

### PROGRAMME SPECIFIC ASSESSMENT REGULATIONS

### PASS / FAIL CRITERIA FOR SINGLE AND WHOLE BODY REPORTS

The following pass / fail criteria have been designed for single and whole body reports that are used for module assessment in:

- Advanced Post Mortem Radiology, Adult Natural Death
- Advanced Post Mortem Radiology, Adult Unnatural Death I
- Advanced Post Mortem Radiology, Adult Unnatural Death II

Any of the three failed criteria attained below will be an automatic fail for the case study overall.

Individual case studies failed can be resubmitted once. If this resubmission passes, an automatic 50% will be awarded irrespective of the passed criteria met.

CRITERIA	FAIL	PASS	MERIT	DISTINCTION
CRITERIA	35%	50%	60%	70%
Pathology	Misses major pathology	Correctly describes all major, but misses most minor pathology	Correctly describes all major and most minor pathology	Correctly describes all major and minor pathology
Medico legal interpretation	Provides incorrect medico legal interpretation	Correctly provides some medico legal interpretation	Correctly provides most medico legal interpretation	Correctly provides full medico legal interpretation
Correct cause of death	Provides incorrect cause of death	Provides correct cause of death	Provides correct cause of death	Provides correct cause of death

# Note for all programme assessments.

The pass / fail criteria is set at 50%. This must be achieved in all three criteria. A single criteria marked as a fail means an automatic fail for any individual case study. This means that every component of all modules must be passed at a minimum of 50%. Although the Coroners and Civil Courts work on a burden of proof "on the balance of probabilities" the criminal courts work at a level of "beyond reasonable doubt". The course is set at this latter level to take into account the stringent requirements of medico legal practice. Unlike other disciplines of medicine where there is a defined accepted diagnostic error rate medico legal practice does not provide this provision. In terms of the major pathology, medico legal interpretation and agreed cause of death there is a zero tolerance for error within the criminal courts. This is because diagnostic errors can lead to miscarriages of justice which can have a significant detrimental effect of all who practice within the criminal justice system.