



**CORPORATE AND ACADEMIC SERVICES**

**MODULE SPECIFICATION**

Part 1: Basic Data					
Module Title	General Medical Ultrasound in Practice				
Module Code	UZYSPPH-30-M	Level	M	Version	1
Owning Faculty	Health & Life Sciences	Field	Allied Health Professions		
Contributes towards	MSc In Medical Ultrasound				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Professional Practice
Pre-requisites			Co- requisites	Ultrasound Technology UZYSPPQ-30-M	
Excluded Combinations	None		Module Entry requirements		
Valid From	Jan 2014		Valid to	Aug 2020	

<b>CAP Approval Date</b>	09/07/2013
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> <li>• Apply theoretical knowledge to the practice of general medical ultrasound. (Component A and Component B)</li> <li>• Utilise relevant knowledge of anatomy, physiology and pathology of the relevant organ systems to solve complex problems. (Component A and Component B)</li> <li>• Demonstrate a critical knowledge of the legal, ethical and organisational aspects of current ultrasound practice in General Medical Ultrasound. (Component B)</li> <li>• Critically evaluate contemporary research concerning the aetiology and management of pathologies affecting organ systems in order to inform practice, and implement new approaches where appropriate. (Component A and Component B)</li> <li>• Critically evaluate the contribution that general medical ultrasound makes, compared to other diagnostic tests/procedures, in order to derive a differential diagnosis. (Component A and Component B)</li> <li>• Perform a comprehensive range of general medical ultrasound procedures both skilfully and safely, demonstrating the skills required of a competent practitioner, and an ability to adapt effectively to new or unusual situations. (Component A)</li> <li>• Justify the contribution of the role of general medical ultrasound to the overall management of the patient. (Component B)</li> <li>• Make evaluative judgements on the outcomes of ultrasound examination and report the findings accordingly. (Component A)</li> <li>• Make an active contribution within a multidisciplinary professional community by reflecting upon one's own practice and the practice of others. (Component B)</li> <li>• Engage in effective communication with clients, their families and healthcare professionals, and make appropriate referrals as required. (Component A)</li> </ul>

<p>Syllabus Outline</p>	<p><b>General Contents</b>  Applied anatomy, physiology and pathology related to general medical ultrasound practice; role of ultrasound as a screening procedure  Interpretation of biochemical and other invasive or non-invasive screening/diagnostic tests, issues relating to the holistic preparation and care of the patient  Role of ultrasound in the overall management of the patient.  Ultrasound appearances of normal and abnormal anatomy, to include anatomical variants.  Range of ultrasound techniques for external and intra-cavity procedures.  Doppler studies.  Contrast Agents.  Complementary and/or alternative imaging techniques.  4D Scanning  Interpretation and recording of examination data.  Safety guidelines, protocols and legislation.  Contemporary research and developments in ultrasound.  Techniques related to ultrasound imaging of abdominal and pelvic contents  Genito-urinary system Hepato-biliary system  Pancreas  Lymphatic system  Peritoneum Vascular  Digestive system  Male and female reproductive systems Normal and abnormal appearances of the female pelvis  Techniques related to ultrasound imaging of non-abdominal superficial structures  Thyroid; breast; soft-tissues; musculo-skeletal; vascular; testes; salivary glands.  Paediatric ultrasound techniques  Ultrasound of the thorax  Pleural and pericardial effusions.</p> <p><b>Legal and Ethical issues:</b>  General legal and ethical principles relating to the practice of General Medical Ultrasound</p> <p><b>Professional and employment issues relating to General Medical Ultrasound practice:</b>  Professionalism and professionalisation.  Work related upper limb disorders.  Ergonomics</p> <p><b>Communication:</b>  Importance of effective communication, listening skills, verbal/non verbal communication and self-awareness.  Issues of confidentiality and counselling models.</p> <p><b>Reporting:</b>  Principles of verbal and written reporting, approaches to decision making, record keeping  Influences of information technology on database development and use of information  Work related upper limb disorders</p>
<p>Contact Hours</p>	<p>Contact time may include any of the following activities:  Lectures; class discussions; tutorials, synchronous on-line discussion boards; seminars; clinical placement visits; medical museum visit; laboratory hands-on clinical practice using a simulator and real-life models; VLE using e-Blackboard.</p> <p>Lectures will be provided by the Course Team and by external clinical specialists.  Classroom sessions will also include hands-on scanning supervised sessions and review of cases. Discussion groups will be organised covering a range of relevant topics</p>
<p>Teaching and Learning Methods</p>	<p><b>Scheduled learning</b> constitutes 112 hours of the overall module total, and includes lectures, seminars, tutorials, demonstrations, practical classes and workshops; external visits; work based learning; supervised practise time in scanning room.</p>

	<p><b>Independent learning</b> includes a minimum of 188 hours engaged with activities such as essential reading, case study preparation, assignment preparation and completion, computer assisted learning; simulator scanning, reflection on learning.</p> <p><b>Placement learning:</b> clinical practice placements are negotiated and organised by the student, but should include a minimum of 15 hours a week of supervised scanning for the duration of the module.</p>
Reading Strategy	<p><u>Access and Skills</u> All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively. Additional support is available through the iSkillZone available via the Library web pages. This includes interactive tutorials on search skills and on the use of specific electronic library resources. Sign up workshops are also offered by the Library.</p> <p><u>Essential Reading</u> Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given a print study pack or be referred to texts that are available electronically.</p> <p><u>Further Reading</u> Further reading will be required to supplement the set textbook and other printed readings. The purpose of this further reading is to ensure students are familiar with current research, classic works and material specific to their interests from the academic literature.</p> <p>Students are also expected to identify further material for themselves using:-</p> <p>The Library Catalogue via the Library Search</p> <ul style="list-style-type: none"> <li>• Databases such as: <ul style="list-style-type: none"> <li>○ Cochrane Library</li> <li>○ Cinahl</li> <li>○ Medline</li> <li>○ Amed</li> <li>○ Assia</li> <li>○ Embase</li> <li>○ PsycInfo</li> </ul> </li> </ul> <p>The Library Catalogue</p> <ul style="list-style-type: none"> <li>• Web sites such as: <ul style="list-style-type: none"> <li><a href="http://www.bmus.org">www.bmus.org</a></li> <li><a href="http://www.bma.org.uk">www.bma.org.uk</a></li> <li><a href="http://www.legislation.gov.uk/">http://www.legislation.gov.uk/</a></li> <li><a href="http://www.legislation.hmsso.gov.uk">www.legislation.hmsso.gov.uk</a></li> <li><a href="http://www.evidence.nhs.uk/">http://www.evidence.nhs.uk/</a></li> <li><a href="http://www.ob-ultrasound.net/">www.ob-ultrasound.net/</a></li> </ul> </li> </ul>
Indicative Reading List	<p>Ahuja, A. (2007) <i>Diagnostic Imaging</i>. Amirsys.</p> <p>Bates, J. (2011) <i>Abdominal Ultrasound</i>. 3<sup>rd</sup> ed. London: Churchill Livingstone.</p> <p>Curry, R.A and Tempkin, B.B. (2011) <i>Sonography Introduction to Normal Structure and Function</i>. 3<sup>rd</sup> ed. St Louis: Saunders.</p> <p>De Bruyn R. (2010) <i>Pediatric Ultrasound: The Who, Why and When</i> London: Churchill Livingstone</p>

	<p>McGahan J. Goldberg B (2008) <i>Diagnostic Ultrasound</i>. (2 vols.) 2<sup>nd</sup> ed. New York: Informa Healthcare.</p> <p>Dewbury, K., Meire, H and Cosgrove, D. (2001) <i>Ultrasound in Obstetrics and Gynaecology</i>. (3 vols.) London: Churchill Livingstone.</p> <p>Meire H (2001) <i>Abdominal and General Ultrasound</i>. London: Churchill Livingstone.</p> <p>Noble, V and Nelson, B. (2011) <i>Manual of Emergency and Critical Care Ultrasound</i>. [online] Cambridge University Press. [Accessed 27 March 2013].</p> <p>Rumack, C, Wilson, S. and Charboneau, J. (2011) <i>Diagnostic Ultrasound</i>. (2 vols.). St. Louis: Mosby</p> <p>UKAS, (2008). <i>Guidelines for Professional Working Standards: Ultrasound Practice</i>. [online] [Accessed 27 March 2013].</p>
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<b>Part 3: Assessment</b>	
Assessment Strategy	<p><b>Assessment for the module incorporates both clinical and academic processes i.e. both cognitive ability and professional competence are assessed (at level M).</b></p> <p>A wide range of assessment strategies are employed to ensure that the postgraduate student has acquired the knowledge and understanding, as well as the intellectual, practical and transferable skills for this Programme. The details of the assessments feature in the relevant module handbooks. The assessment strategy of this Programme will thus seek to reflect the learning outcomes of each module.</p> <p><b>Component A : Practice-Based Assessment</b></p> <p>The practice-based assessment consists of the production of a Clinical Portfolio of evidence</p> <p>This portfolio is comprised of</p> <ul style="list-style-type: none"> <li>• Memorandum of Understanding</li> <li>• Placement Progress Report (one per month)</li> <li>• Record of clinical experience (<i>minimum number of 100 cases in each area displaying a range of various examinations and pathology</i>)</li> <li>• Evidence of CPD with reflective accounts</li> <li>• Example anonymised reports with images</li> <li>• 2 x <b>1000</b> word case studies which demonstrates the current use of ultrasound as a diagnostic tool within the area of specialism</li> <li>• 4 summative clinical assessments</li> <li>• Departmental scanning protocols</li> </ul> <p>The practice-based assessment is marked as a PASS/FAIL. All elements are equally weighted. Further details are in the clinical portfolio handbook.</p> <p><b>Component B: Written Assignment</b></p> <p>Consists of a 3000 word written assignment on a subject relating to the area of speciality being studied. Further details are in the module handbook</p>

Identify final assessment component and element	<b>Component A</b>	
% weighting between components A and B (Standard modules only)	<b>A:</b>	<b>B:</b>
<b>First Sit</b>		
<b>Component A</b> (controlled conditions) <b>Description of each element</b>	<b>Element weighting</b>	
Practice based assessments to include production of portfolio	Pass/Fail	
<b>Component B</b> <b>Description of each element</b>	<b>Element weighting</b>	
3000 word assignment	100	

<b>Resit (further attendance at taught classes is not required)</b>		
<b>Component A</b> (controlled conditions) <b>Description of each element</b>	<b>Element weighting</b>	
Practice based assessments to include production of portfolio	Pass/Fail	
<b>Component B</b> <b>Description of each element</b>	<b>Element weighting</b>	
Resubmission of a 3000 word assignment	100	
If a student is permitted an <b>EXCEPTIONAL RETAKE</b> of the module the assessment will be that indicated by the Module Description at the time that retake commences.		