

## Module Specification

### Module Summary Information

<b>1</b>	<b>Module Title</b>	Applied Principles of Pathophysiology for the Critically Ill Patient
<b>2</b>	<b>Module Credits</b>	20
<b>3</b>	<b>Module Level</b>	LEVEL 7
<b>4</b>	<b>Module Code</b>	LBR7681
<b>5</b>	<b>Semester Taught</b>	1

<b>6</b>	<b>Module Overview</b>
<p>This module aims to enhance your knowledge base of applied anatomy and physiology, in relation to body systems and explore the pathophysiological processes that may affect these systems. This module aims to provide you with the skills, in-depth applied physiology, and knowledge required to apply safe high quality bedside care to the critically ill patient and their family. The focus of the module is to provide opportunities for you to interpret the significance of altered pathophysiological mechanisms, pathophysiology of critical illness and its implications will be explored within the context of patient assessment and interpretation of clinical symptoms.</p> <p>The module will enable registered nurses to gain to the knowledge and skills to assess, implement and evaluate patient centred care in order to deliver high quality, safe care to critically ill patients. The module aims to bridge the theory practice gap by using partnership approach to help embed theoretical concepts into clinical practice. It has been developed and will be delivery by a combined team of academic and senior clinically credible practitioners within the speciality of critical care in the UK and internationally.</p> <p>The content is aligned to the National Standards for Critical Care Nurse Education (CC3N, 2016), the General Provision of Intensive Care standards (FICM, 2022) and the National Competency Framework for Registered Nurses in Adult Critical Care (CC3N, 2015) for those completing the UK critical care pathway.</p> <p>This module can either be studied as a stand-alone module or as part of the MSc Professional Practice (Adult Critical Care). For those studying the pathway, this module is one of two core modules, which constitutes the 60-credit award at level 7 which upon completion will enable you to achieve a named award in Adult Critical Care and achieve a standardised and transferable critical care post registration academic award (CC3N, 2015).</p> <p>This module aligns with the Professional Practice Programme philosophy and is designed to be flexible, and practice led. You will have the opportunity to develop skills of enquiry, reflection and problem solving. A blended learning approach is taken in line with the university's learning and teaching strategy. You will be encouraged to think critically and share practice experiences with your fellow students, as well as engaging in both directed and self-directed learning activities. You will be an active partner in your own learning and development and in return you will receive regular feedback and feedforward aimed at developing your academic skills and have the opportunity to discuss your progress with the module team.</p>	

<b>7</b>	<b>Indicative Content</b>
<p>Using a systems approach, the module will explore pathophysiological dysfunction. Content includes:</p> <ul style="list-style-type: none"> <li>• Respiratory</li> <li>• Cardiac</li> <li>• Renal</li> <li>• Liver</li> </ul>	

- Neurological
- Gastro-intestinal
- Immunology
- Endocrine/exocrine dysfunction

The application of a variety of organ failure case scenarios, such as sepsis, allows for students to interpret patient data and will help the translation of theory into practice.

8		Module Learning Outcomes
<b>On successful completion of the module, students will be able to:</b>		
1	Utilising academic skills, retrieve and apply appropriate evidence and knowledge to formulate critical debate required at level 7.	
2	Critically analyse and synthesise the key pathophysiological processes in relation to the critically ill patient with organ dysfunction.	
3	Critically evaluate and demonstrate mastery of clinical derived patient data to explain altered homeostatic mechanisms pertaining to the critically ill adult.	

9				Module Assessment
Learning Outcome Number <i>(from table 8)</i>	Coursework	Exam	In-Person	
1,2,3		100%		

10			Breakdown Learning and Teaching Activities
Learning Activities	Hours	Details of Duration, Frequency and other comments	
<b>Scheduled Learning (SL)</b> includes lectures, practical classes and workshops as specified in timetable	42 hours	2-hour online lectures x 15 2hr seminar x6	
<b>Directed Learning (DL)</b> includes placements, work-based learning, peer group learning external visits, on-line activity, Graduate+, peer learning, as directed on VLE	38 hours	3-hours asynchronous online content engagement x 10  8-hours online tutorial support.	
<b>Private Study (PS)</b> includes preparation for exams	120 hours	Regular engagement with MOODLE-based learning resources, literature searching, reading, critical thinking and applying this to completion of module summative assessment	
<b>Total Study Hours:</b>	200 hours		

<b>11</b>	<b>Key Texts and Online Learning Resources</b>
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No books are recommended as must-purchase titles, due to the individual nature of academic skill development, diversity of clinical backgrounds of students completing this module, and the well-resourced library. The following books/ articles/ reports are highly recommended and will be referred to throughout the module:

Boyle M. Bothamley J. (2018) Critical care assessment by Midwives. Routledge.

Leach RM. (2022). Critical Care medicine at a glance. 4th edition. Wiley

Marieb E. Hoehn K. (2021). Human anatomy & physiology. 13<sup>th</sup> edition. Pearson.

Martini F. (2018). Fundamentals of anatomy & physiology. 11<sup>th</sup> edition, Global edition. Pearson.

Waugh A. Grant A. Chambers G. (2022). Ross and Wilson anatomy & physiology in health and illness. 14<sup>th</sup> edition. Churchill Livingstone.

Ward NS. Levy MM. (2017). Sepsis: definitions, pathophysiology and the challenge of bedside management. Humana Press.